



# THINKING CRITICALLY

JOHN CHAFFEE

sixth  
edition





# THINKING CRITICALLY

sixth edition

JOHN CHAFFEE, Ph.D

Director, Center for Critical  
Thinking and Language Learning  
*LaGuardia College,*  
*City University of New York*

This book was customized so that the content and exercises are especially relevant to the student body at DeVry University at Chicago. This project was completed by Professor Teresa Hayes, with the help of the DeVry-Chicago COLL 147 team.

Houghton Mifflin Company  
Boston New York

Senior Sponsoring Editor: Dean Johnson  
Senior Project Editor: Rosemary Winfield  
Senior Production/Design Coordinator: Jill Haber  
Senior Cover Design Coordinator: Deborah Azerrad Savona  
Senior Marketing Manager: Nancy Lyman

Custom Publishing Editor: Kyle Henderson  
Custom Publishing Production Manager: Kathleen McCourt  
Project Coordinator: Kim Gavrilles

Cover Designer: André Mora


Copyright © 2000 by John Chaffee. 2002 Impression. All rights reserved.

All rights reserved. No part of this publication may be reproduced in any form whatsoever, by photograph or xerography or by any other means, by broadcast or transmission, by translation into any kind of language, nor by recording electronically or otherwise, without permission in writing from the publisher, except by a reviewer, who may quote brief passages in critical articles and reviews.

Printed in the United States of America.

ISBN: 0-618-29659-X  
N01679

2 3 4 5 6 7 8 9 - CCI - 04 03 02

 **Houghton Mifflin**  
Custom Publishing


222 Berkeley Street • Boston, MA 02116

Address all correspondence and order information to the above address.



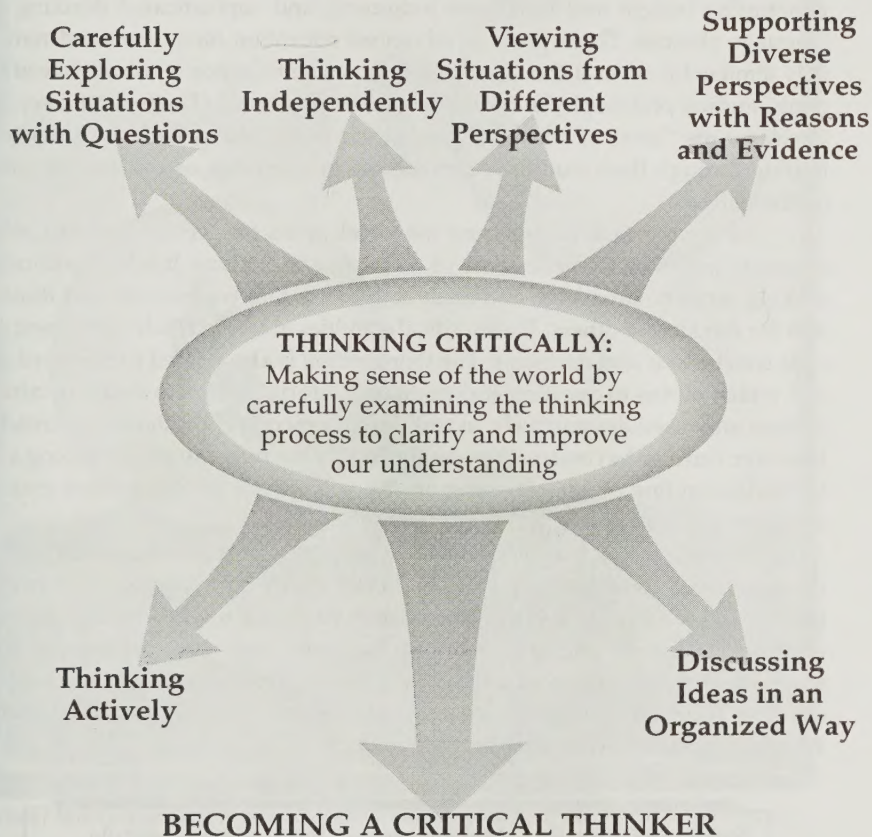
# Contents

Chapter 1	<b>Thinking Critically</b>	1
Chapter 2	<b>Thinking Critically About the Future</b>	67
Chapter 3	<b>Solving Problems</b>	149
Chapter 4	<b>Perceiving</b>	199
Chapter 5	<b>Believing and Knowing</b>	199
Chapter 6	<b>Language and Thought</b>	249
Chapter 7	<b>Thinking Critically, Living Creatively, Working Collaboratively</b>	318



Digitized by the Internet Archive  
in 2024

# CHAPTER 1 THINKING CRITICALLY





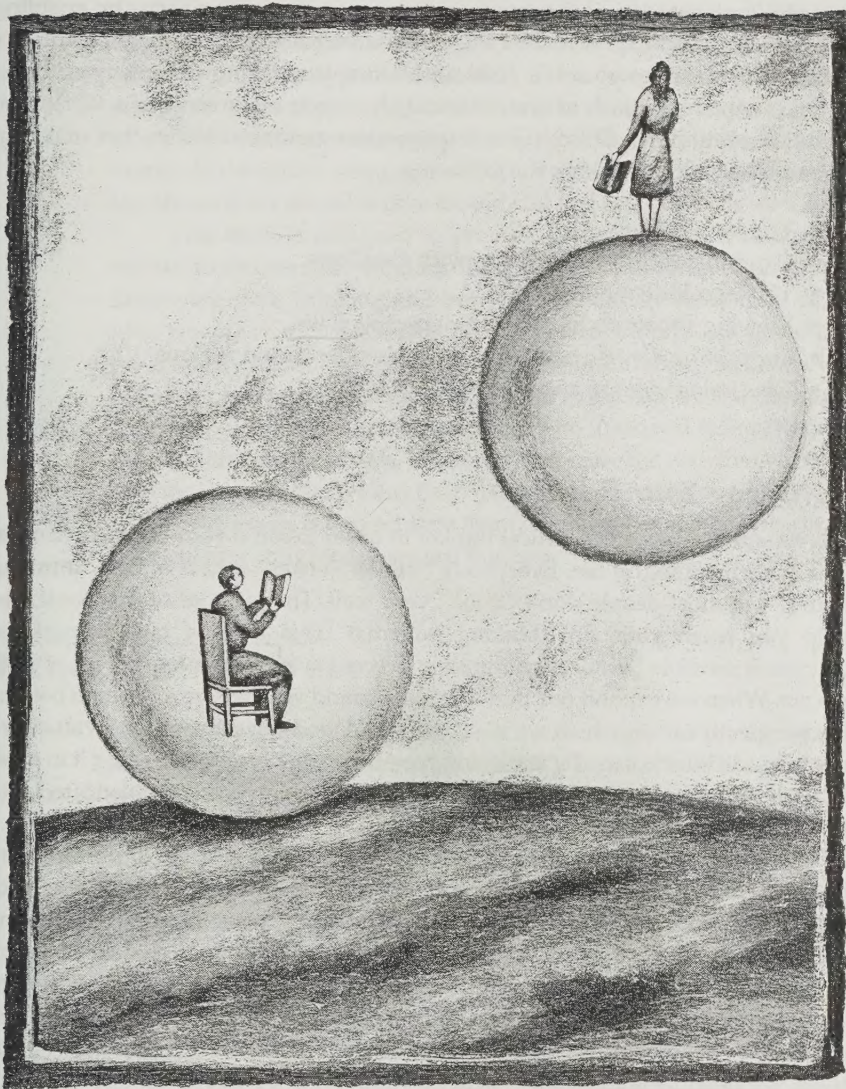
A COLLEGE EDUCATION is the road that can lead you to your life's work, a career that will enable you to use your unique talents to bring you professional fulfillment. However, there are many other benefits to a college education, among them the opportunity to become what we have called an "educated thinker." Becoming an educated thinker is essential for achieving the greatest possible success in your chosen career, and it enriches your life in many other ways as well.

Traditionally, when people refer to an "educated thinker," they mean someone who has developed a knowledgeable understanding of our complex world, a thoughtful perspective on important ideas and timely issues, the capacity for penetrating insight and intelligent judgment, and sophisticated thinking and language abilities. These goals of advanced education have remained remarkably similar for several thousand years. In ancient Greece, most advanced students studied philosophy in order to achieve "wisdom." (The term *philosophy* in Greek means "lover of wisdom.") In today's world, many college students are hoping through their studies to become the modern-day equivalent: informed, *critical thinkers*.

The word *critical* comes from the Greek word for "critic" (*kritikos*), which means to question, to make sense of, to be able to analyze. It is by questioning, making sense of situations, and analyzing issues that we examine our thinking and the thinking of others. These critical activities aid us in reaching the best possible conclusions and decisions. The word *critical* is also related to the word *criticize*, which means to question and evaluate. Unfortunately, the ability to criticize is often only used destructively, to tear down someone else's thinking. Criticism, however, can also be *constructive*—analyzing for the purpose of developing a better understanding of what is going on. We will engage in constructive criticism as we develop our ability to think critically.

Thinking is the way you make sense of the world; thinking critically is thinking *about* your thinking so that you can clarify and improve it. If you can understand the way your mind works when you work toward your goals, make informed decisions, and analyze complex issues, then you can learn to think more effectively in these situations. In this chapter you will explore ways to examine your thinking so that you can develop it to the fullest extent possible. That is, you will discover how to *think critically*.

<b>Thinking Critically</b>	Making sense of the world by carefully examining the thinking process to clarify and improve our understanding.
----------------------------	---



*Critical thinkers possess a knowledgeable understanding of the world, a thoughtful perspective on important ideas, the capacity for intelligent judgment, and sophisticated language abilities.*



Becoming a critical thinker transforms you in positive ways by enabling you to become an expert learner, view the world clearly, and make productive choices as you shape your life. Critical thinking is not simply one way of thinking; it is a total approach to understanding how you make sense of a world that includes many parts. This chapter explores the various activities that make up thinking critically, including the following:

- Thinking actively
- Carefully exploring situations with questions
- Thinking independently
- Viewing situations from different perspectives
- Supporting diverse perspectives with evidence and reasons
- Discussing ideas in an organized way

### *Fulfilling Your Potential*

It is essential to become a critical thinker in order to fulfill your human potential and live a meaningful life. Everybody “thinks”—*Homo sapiens* means “thinking man”—but most people don’t “think” very well. The purpose of this book is to help you reach your full thinking potential. This kind of transformational process is possible because the thinking process is such an integral part of who we are. When we expand our thinking, we expand who we are as human beings, the perspective from which we view the world, and the concepts and values we use to guide our choices. By exploring your thinking process and using it in carefully designed activities, you can develop it into a powerful, sophisticated tool that will enrich all dimensions of your life.

We each long for a life of significance, to feel that in some important way our own life has made a unique contribution to the world and to the lives of others. We each strive to create our self as a person of unusual quality, someone who is admired by others as extraordinary. We hope for lives characterized by accomplishments and lasting relationships that will distinguish us as memorable individuals both during and after our time on earth. Unfortunately, we often don’t achieve these lofty goals. In order to discover the meaning of our lives, we need to understand “who” we are. And we live in an age in which many people are not sure “who” they are or whether in fact their lives have *any* significant meaning.

When we are asked questions such as “Who are you?” or “What is the meaning of your life?” we often have no idea of how to respond. But an even more revealing symptom of our confusion and alienation is the fact that we



rarely even pose these questions—to ourselves or to others. We are too busy “living” to wonder *why* we are living or who is actually doing the living. But can we afford to be too busy to find meaning in our lives? We so often cruise along on autopilot—days slipping into weeks, weeks merging into years, years coalescing into a life—without confronting these important questions. If we are to become human in the fullest sense, achieving our distinctive potentials and living lives of significance, we must become thoughtful and reflective critical thinkers.

This book is designed to provide the knowledge, guidance, and practice needed to elevate your thinking abilities to an optimal level. As a natural result of improving your thinking abilities, you will enrich the quality of your life and who you are as a human being. In our present culture, we spend a great deal of time, money, and effort seeking to improve our health, condition our bodies, and better our personal appearance. Too often neglected is the most important ingredient: the core of who we are—our ability to think and reflect, to understand our past and create our futures. We must restructure the way that we *think* in order to reshape the way that we *are*. Each of us strives for a life of purpose. Such lives are within our grasp, but to achieve them, we must harness the power of our minds by becoming enlightened critical thinkers.

---

## THINKING ACTIVELY

When you think critically, you are *actively* using your intelligence, knowledge, and abilities to deal effectively with life’s situations. When you think actively, you are

- *Getting involved* in potentially useful projects and activities instead of remaining disengaged
- *Taking initiative* in making decisions on your own instead of waiting passively to be told what to think or do
- *Following through* on your commitments instead of giving up when you encounter difficulties
- *Taking responsibility* for the consequences of your decisions rather than unjustifiably blaming others or events “beyond your control”

When you think actively, you are not just waiting for something to happen. You are engaged in the process of achieving goals, making decisions, and solving problems. When you react passively, you let events control you or permit others to do your thinking for you. To make an intelligent decision about

your future career, for example, you have to work actively to secure more information, try out various possibilities, speak with people who are experienced in your area of interest, and then critically reflect on all these factors. Thinking critically requires that you think actively—not react passively—to deal effectively with life's situations.

### *Influences on Your Thinking*

As our minds grow and develop, we are exposed to influences that encourage us to think actively. We also, however, have many experiences that encourage us to think passively. For example, some analysts believe that when people, especially children, spend much of their time watching television, they are being influenced to think passively, thus inhibiting their intellectual growth. Listed here are some of the influences we experience in our lives along with space for you to add your own influences. As you read through the list, place an *A* next to those items you believe in general influence you to think *actively*, and a *P* next to those you consider to be generally *passive* influences.

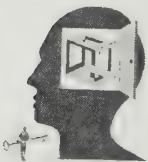
#### *Activities:*

Reading books  
Writing  
Watching television  
Dancing  
Drawing/painting  
Playing video games  
Playing sports  
Listening to music

#### *People:*

Family members  
Friends  
Employers  
Advertisers  
School/college teachers  
Police officers  
Religious leaders  
Politicians

### **THINKING ACTIVITY 1.1** *INFLUENCES ON OUR THINKING*



All of us are subject to powerful influences on our thinking, influences that we are often unaware of. For example, advertisers spend billions of dollars to manipulate our thinking in ways that are complex and subtle. For this exercise, choose one of the following tasks:

1. Watch some typical commercials, with several other class members if possible, and discuss with other watchers the techniques each advertiser is using to shape your thinking. Analyze with the other viewers how each of the

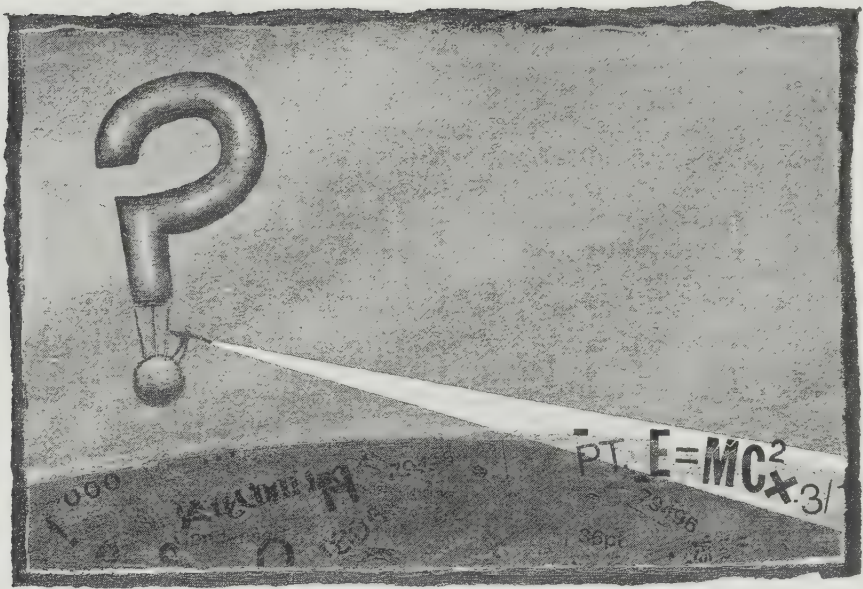
elements in a commercial—images, language, music—affects an audience. Pay particular attention to the symbolic associations of various images and words, and identify the powerful emotions that these associations elicit. Why are the commercials effective? What influential roles do commercials play in our culture as a whole? For instance, think about how the impact of Nike commercials extends far beyond merely selling athletic shoes and sports-wear to creating idealized images that people strive to emulate.

2. Select a Web site that uses advertisements and do an in-depth analysis of it. Explain how each of the site's elements—design, content, use of advertisements, links—works to influence our thinking. Pay particular attention to the advertisements: Are they static or flashing (in the same place, but changing every few minutes)? If you are observing a changing advertisement, monitor it for an hour or two and see how often it changes and who the advertisers are. What does this tell you about the site and the creators of the site? ◀

Of course, in many cases people and activities can act as both active and passive influences, depending on the specifics of situations and our individual responses. For example, consider employers. If we are performing a routine, repetitive job, as I did during the summer I spent in a peanut butter cracker factory hand-scooping 2,000 pounds of peanut butter a day, the very nature of the work tends to encourage passive, uncreative thinking (although it might also lead to creative daydreaming!). We are also influenced to think passively if our employer gives us detailed instructions for performing every task, instructions that permit no exception or deviation. On the other hand, when our employer gives us general areas of responsibility within which we are expected to make thoughtful and creative decisions, then we are being stimulated to think actively and independently.

These contrasting styles of supervision are mirrored in different approaches to raising children. Some parents encourage children to be active thinkers by teaching them to express themselves clearly, make independent decisions, look at different points of view, and choose what they think is right for themselves. Other parents influence their children to be passive thinkers by not letting them do things on their own. These parents give the children detailed instructions they are expected to follow without question and make the important decisions for them. They are reluctant to give their children significant responsibilities, creating, unintentionally, dependent thinkers who are not well adapted to making independent decisions and assuming responsibility for their lives.





*Active learners take initiative in exploring their world, think independently and creatively, and take responsibility for the consequences of their decisions.*

### *Becoming an Active Learner*

Critical thinkers actively use their intelligence, knowledge, and abilities to deal with life's situations. Similarly, active thinking is one of the keys to effective learning. Each of us has our own knowledge framework that we use to make sense of the world, a framework that incorporates all that we have learned in our lives. When we learn something new, we have to find ways to integrate this new information or skill into our existing knowledge framework. For example, if one of your professors is presenting material on Sigmund Freud's concept of the unconscious or the role of Heisenberg's uncertainty principle in the theory of quantum mechanics, you need to find ways to relate these new ideas to things you already know in order to make this new information "your own." How do you do this? By actively using your mind to integrate new information into your existing knowledge framework, thereby expanding the framework to include this new information.

For example, when your professor provides a detailed analysis of Freud's concept of the unconscious, you use your mind to call up what you know about Freud's theory of personality and what you know of the concept of the uncon-

scious. You then try to connect this new information to what you already know, integrating it into your expanding knowledge framework. In a way, learning is analogous to the activity of eating: you ingest food (*information*) in one form, actively transform it through digestion (*mental processing*), and then integrate the result into the ongoing functioning of your body.

---

## CAREFULLY EXPLORING SITUATIONS WITH QUESTIONS

As you have just seen, thinking critically involves actively using your thinking abilities to attack problems, meet challenges, and analyze issues. An important dimension of thinking actively is carefully exploring the situations in which you are involved with relevant questions. In fact, the ability to ask appropriate and penetrating questions is one of the most powerful thinking tools you possess, although many people do not make full use of it. Active learners explore the learning situations they are involved in with questions that enable them to understand the material or task at hand, and then integrate this new understanding into their knowledge framework. In contrast, passive learners rarely ask questions. Instead, they try to absorb information like sponges, memorizing what is expected and then regurgitating what they memorized on tests and quizzes.

Questions come in many different forms and are used for a variety of purposes. For instance, questions can be classified in terms of the ways that people organize and interpret information, and we can identify six such categories of questions:

- |                   |                |
|-------------------|----------------|
| 1. Fact           | 4. Synthesis   |
| 2. Interpretation | 5. Evaluation  |
| 3. Analysis       | 6. Application |

Active learners are able to ask appropriate questions from all of these categories in a very natural and flexible way. These various types of questions are closely interrelated, and an effective thinker is able to use them in a productive relation to one another. Also, these categories of questions are very general and at times overlap with one another. This means that a given question may fall into more than one of the six categories of questions. Following is a summary of the six categories of questions along with sample forms of questions from each category.

1. *Questions of Fact:* Questions of fact seek to determine the basic information of a situation: who, what, when, where, how. These questions seek information that is relatively straightforward and objective.

Who, what, when, where, how \_\_\_\_\_?

Describe \_\_\_\_\_.

2. *Questions of Interpretation:* Questions of interpretation seek to select and organize facts and ideas, discovering the relationships between them. Examples of such relationships include the following:

- *Chronological relationships:* relating things in time sequence
- *Process relationships:* relating aspects of growth, development, or change
- *Comparison/contrast relationships:* relating things in terms of their similar/different features
- *Causal relationships:* relating events in terms of the way some events are responsible for bringing about other events

Retell \_\_\_\_\_ in your own words.

What is the *main idea* of \_\_\_\_\_?

What is the *time sequence* relating the following events: \_\_\_\_\_?

What are the steps in the *process of growth or development* in \_\_\_\_\_?

How would you *compare and contrast* \_\_\_\_\_ and \_\_\_\_\_?

What was the *cause* of \_\_\_\_\_? The *effect* of \_\_\_\_\_?

3. *Questions of Analysis:* Questions of analysis seek to separate an entire process or situation into its component parts and to understand the relation of these parts to the whole. These questions attempt to classify various elements, outline component structures, articulate various possibilities, and clarify the reasoning being presented.

What are the *parts or features* of \_\_\_\_\_?

*Classify* \_\_\_\_\_ according to \_\_\_\_\_.



Outline/diagram/web \_\_\_\_\_.

What *evidence* can you present to support \_\_\_\_\_?

What are the *possible alternatives* for \_\_\_\_\_?

Explain the *reasons why* you think \_\_\_\_\_.

4. *Questions of Synthesis*: Questions of synthesis have as their goal combining ideas to form a new whole or come to a conclusion, making inferences about future events, creating solutions, and designing plans of action.

What would you *predict/infer* from \_\_\_\_\_?

What ideas can you *add to* \_\_\_\_\_?

How would you *create/design* a new \_\_\_\_\_?

What might happen if you *combined* \_\_\_\_\_ with \_\_\_\_\_?

What *solutions/decisions* would you suggest for \_\_\_\_\_?

5. *Questions of Evaluation*: The aim of evaluation questions is to help us make informed judgments and decisions by determining the relative value, truth, or reliability of things. The process of evaluation involves identifying the criteria or standards we are using and then determining to what extent the things in common meet those standards.

How would you *evaluate* \_\_\_\_\_, and what *standards* would you use?

Do you agree with \_\_\_\_\_? Why or why not?

How would you *decide* about \_\_\_\_\_?

What *criteria* would you use to *assess* \_\_\_\_\_?

6. *Questions of Application*: The aim of application questions is to help us take the knowledge or concepts we have gained in one situation and apply them to other situations.

How is \_\_\_\_\_ an example of \_\_\_\_\_?

How would you *apply* this rule/principle to \_\_\_\_\_?

Mastering these forms of questions and using them appropriately will serve you as powerful tools in the learning process.

Becoming an expert questioner is an ongoing project, and you can practice it throughout the day. When you are talking to people about even everyday topics, get in the habit of asking questions from all of the different categories. Similarly, when you are attending class, taking notes, or reading assignments, make a practice of asking—and trying to answer—appropriate questions. You will find that by actively exploring the world in this way you are discovering a great deal and learning what you have discovered in a meaningful and lasting fashion.

As children, we were natural questioners, but this questioning attitude was often discouraged when we entered the school system. Often we were given the message, in subtle and not so subtle ways, that “schools have the questions; your job is to learn the answers.” The educator Neil Postman has said: “Children enter schools as question marks and they leave as periods.” In order for us to become critical thinkers and effective learners, we have to become question marks again.

## THINKING ACTIVITY 1.2 ANALYZING A COMPLEX ISSUE



Review the following decision-making situation (based on an incident that happened in Springfield, Missouri, in 1989), and then critically examine it by posing questions from each of the six categories we have considered in this section:

- |                   |                |
|-------------------|----------------|
| 1. Fact           | 4. Synthesis   |
| 2. Interpretation | 5. Evaluation  |
| 3. Analysis       | 6. Application |

Imagine that you are a member of a student group at your college that has decided to stage the controversial play *The Normal Heart* by Larry Kramer. The play is based on the lives of real people and dramatizes their experiences in the early stages of the AIDS epidemic. It focuses on their efforts to publicize the horrific nature of this disease and to secure funding from a reluctant federal government to find a cure. The play is considered controversial because of its exclusive focus on the subject of AIDS, its explicit homosexual themes, and the large amount of profanity contained in the script. After lengthy discussion,

however, your student group has decided that the educational and moral benefits of the play render it a valuable contribution to the life of the college.

While the play is in rehearsal, a local politician seizes upon it as an issue and mounts a political and public relations campaign against it. She distributes selected excerpts of the play to newspapers, religious groups, and civic organizations. She also introduces a bill in the state legislature to withdraw state funding for the college if the play is performed. The play creates a firestorm of controversy, replete with local and national news reports, editorials, and impassioned speeches for and against it. Everyone associated with the play is subjected to verbal harassment, threats, crank phone calls, and hate mail. The firestorm explodes when the house of one of the key spokespersons for the play is burned to the ground. The director and actors go into hiding for their safety, rehearsing in secret and moving from hotel to hotel.

Your student group has just convened to decide what course of action to take. Analyze the situation using the six types of questions listed previously and then conclude with your decision and the reasons that support your decision. ◀

---

## THINKING INDEPENDENTLY

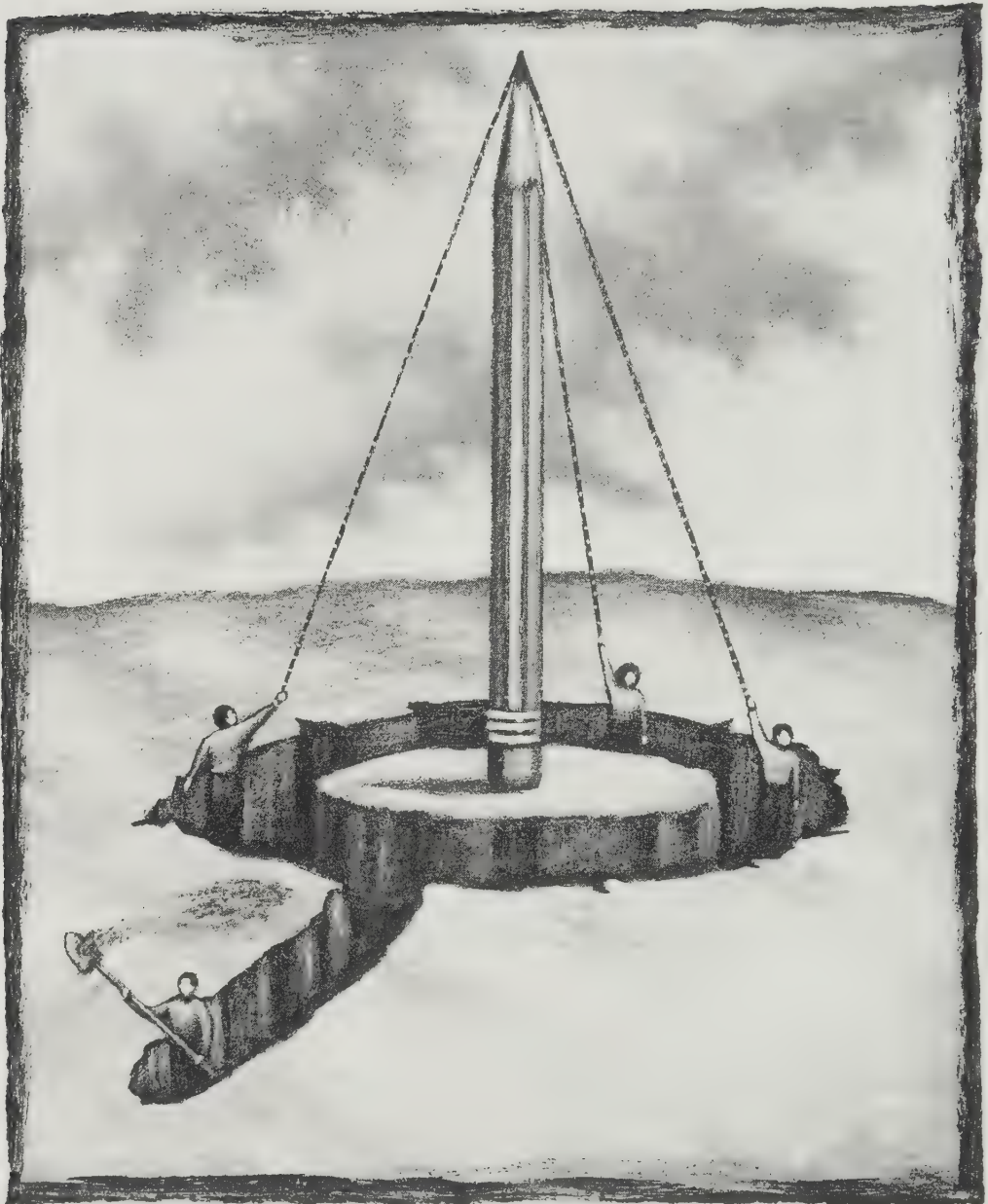
Answer the following questions, based on what you believe to be true.

Yes                      No                      Not Sure

1. Is the earth flat?
2. Is there a God?
3. Is abortion wrong?
4. Have alien life forms  
visited the earth?
5. Should men be the breadwinners  
and women the homemakers?

Your responses to these questions reveal aspects of the way your mind works. How did you arrive at these conclusions? Your views on these and many other issues probably had their beginnings with your family, especially your parents. When we are young, we are very dependent on our parents, and we are influenced by the way they see the world. As we grow up, we learn how to think, feel, and behave in various situations. In addition to our parents, our "teachers" include our brothers and sisters, friends, religious leaders, school-teachers, books, television, and so on. Most of what we learn we absorb without





*Becoming a critical thinker transforms you in positive ways by enabling you to develop your own well-reasoned viewpoints and to make informed choices.*

even being aware of the process. Many of your ideas about the issues raised in the preceding questions were most likely shaped by the experiences you had growing up.

As a result of our ongoing experiences, however, our minds—and our thinking—continue to mature. Instead of simply accepting the views of others, we gradually develop the ability to examine this thinking and to decide whether it makes sense to us and whether we should accept it. As we think through such ideas, we use this standard to make our decisions: Are there good reasons or evidence that support this thinking? If there are good reasons, we can actively decide to adopt these ideas. If they do not make sense, we can modify or reject them.

Of course, we do not *always* examine our own thinking or the thinking of others so carefully. In fact, we very often continue to believe the same ideas we were brought up with, without ever examining and deciding for ourselves what to think. Or we often blindly reject the beliefs we have been brought up with, without really examining them.

How do you know when you have examined and adopted ideas yourself instead of simply borrowing them from others? One indication of having thought through your ideas is being able to explain *why* you believe them, explaining the reasons that led you to these conclusions.

For each of the views you expressed at the beginning of this section, explain how you arrived at it and give the reasons and evidence that you believe support it.

1. *Example:* Is the earth flat?

*Explanation:* I was taught by my parents and in school that the earth was round.

*Reasons/Evidence:*

a. *Authorities:* My parents and teachers taught me this.

b. *References:* I read about this in science textbooks.

c. *Factual evidence:* I have seen a sequence of photographs taken from outer space that show the earth as a globe.

d. *Personal experience:* When I flew across the country, I could see the horizon line changing.

2. Is there a God?

3. Is abortion wrong?

4. Have alien life forms visited the earth?

5. Should men be the breadwinners and women the homemakers?

Of course, not all reasons and evidence are equally strong or accurate. For example, before the fifteenth century the common belief that the earth was flat was supported by the following reasons and evidence:

- *Authorities:* Educational and religious authorities taught people the earth was flat.
- *References:* The written opinions of scientific experts supported belief in a flat earth.
- *Factual evidence:* No person had ever circumnavigated the earth.
- *Personal experience:* From a normal vantage point, the earth *looks* flat.

Many considerations go into evaluating the strengths and accuracy of reasons and evidence, and we will be exploring these areas in this and future chapters. Let's examine some basic questions that critical thinkers automatically consider when evaluating reasons and evidence by completing Thinking Activity 2.3.

### THINKING ACTIVITY 1.3 *EVALUATING YOUR BELIEFS*



Evaluate the strengths and accuracy of the reasons and evidence you identified to support your beliefs on the five issues by addressing questions such as the following:

- *Authorities:* Are the authorities knowledgeable in this area? Are they reliable? Have they ever given inaccurate information? Do other authorities disagree with them?
- *References:* What are the credentials of the authors? Are there other authors who disagree with their opinions? On what reasons and evidence do the authors base their opinions?
- *Factual evidence:* What are the source and foundation of the evidence? Can the evidence be interpreted differently? Does the evidence support the conclusion?
- *Personal experience:* What were the circumstances under which the experiences took place? Were distortions or mistakes in perception possible? Have other people had either similar or conflicting experiences? Are there other explanations for the experience? ◀

Thinking for yourself doesn't always mean doing exactly what you want to; it may mean becoming aware of the social guidelines and expectations of a given situation and then making an informed decision about what is in your



best interests. For example, even though you may have a legal right to choose whatever clothes you want to wear at your workplace, if your choice doesn't conform to your employer's guidelines or "norms," then you may suffer unpleasant consequences as a result. In other words, thinking for yourself often involves balancing your view of things against those of others, integrating yourself into social structures without sacrificing your independence or personal autonomy.

Learning to become an independent, critical thinker is a complex, ongoing process that involves all the abilities we have been examining in this chapter up to this point:

- Thinking actively
- Carefully exploring situations with questions
- Thinking independently

As you confront the many decisions you have to make in your life, you should try to gather all the relevant information, review your priorities, and then carefully weigh all the factors before arriving at a final decision. One helpful strategy for exploring thinking situations is the one we have been practicing: *identify* the important questions that need to be answered and then try to *answer* these questions.

---

## LOOKING CRITICALLY @ EVALUATING INTERNET INFORMATION



The information "superhighway" of the Internet is an incredibly rich source of information on virtually every subject that exists. But it's important to remember that information is not knowledge. Information doesn't become *knowledge* until we think critically about it. As a critical thinker, you should never accept information at face value without first establishing its accuracy, evaluating the credibility of the source, and determining the point of view or bias of the source. These are issues that we will explore throughout this book, but for now you can use the following checklist to evaluate the information on the Internet—and other sources as well.

After you have read through the checklist, log onto any Web site—either one you're already familiar with or one you've never visited before—and evaluate it by answering the questions in the checklist. Record your answers and then discuss your evaluation with other class members.

## ✓ CHECKLIST Evaluating the Quality of Internet Resources

### Criterion 1: Authority

- ✓ Is it clear who sponsors the page and what the sponsor's purpose in maintaining the page is?
- ✓ Is it clear who wrote the material and what the author's qualifications for writing on this topic are?
- ✓ Is there a way of verifying the legitimacy of the page's sponsor; that is, is there a phone number or postal address to contact for more information? (Simply an e-mail address is not enough.)
- ✓ If the material is protected by copyright, is the name of the copyright holder given?

### Criterion 2: Accuracy

- ✓ Are the sources for any factual information clearly listed so they can be verified in another source?
- ✓ Has the sponsor provided a link to outside sources (such as product reviews or reports filed with the SEC) that can be used to verify the sponsor's claims?
- ✓ Is the information free of grammatical, spelling, and other typographical errors? (These kinds of errors not only indicate a lack of quality control but can actually produce inaccuracies in information.)
- ✓ Is statistical data in graphs and charts clearly labeled and easy to read?

- ✓ Does anyone monitor the accuracy of the information being published?

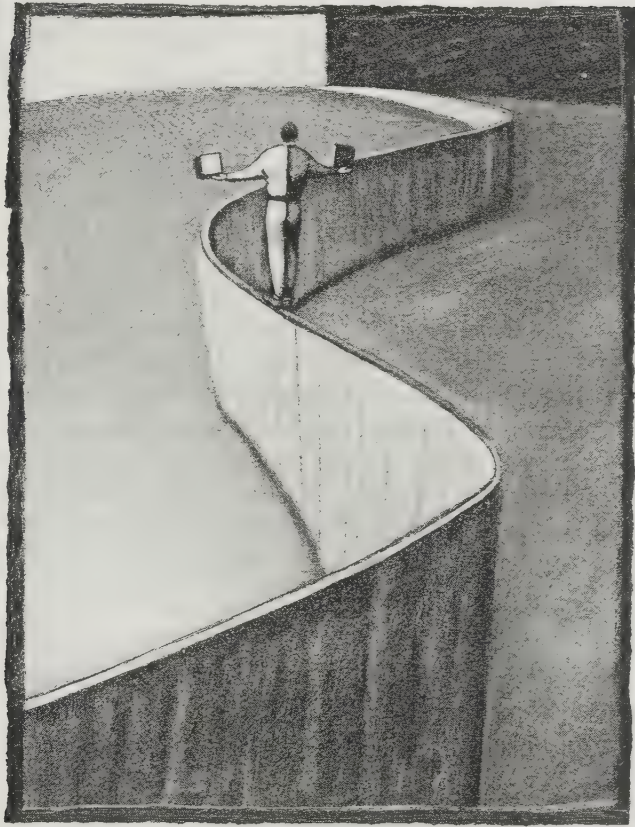
### Criterion 3: Objectivity

- ✓ For any given piece of information, is it clear what the sponsor's motivation is for providing it?
- ✓ Is the information content clearly separated from any advertising or opinion content?
- ✓ Is the point of view of the sponsor presented in a clear manner, with its arguments well supported?

### Criterion 4: Currentness

- ✓ Are there dates on the page to indicate when the page was written, first placed on the Web, and last revised?
- ✓ Are there any other indications that the material is kept current?
- ✓ If material is presented in graphs or charts, is it clearly stated when the data was gathered?
- ✓ Is there an indication that the page has been completed and is not still in the process of being developed?

*Source:* This material was compiled from a set of five checklists created by Jan Alexander and Marsha Tate, "Teaching Critical Evaluation Skills for World Wide Web Resources," 28 Oct. 1996. <http://www.widener.edu/libraries.html>. (Select link "Evaluating Web Resources.") Reprinted from *Computers in Libraries*, courtesy of Information Today, Inc., Medford, New Jersey.



*Critical thinkers are open to new ideas and different viewpoints, with the flexibility to explore all sides of an issue instead of being dogmatic and single-minded.*

---

## VIEWING SITUATIONS FROM DIFFERENT PERSPECTIVES

Although it is important to think for yourself, others may have good ideas from which you can learn and benefit. A critical thinker is a person who is willing to listen to and examine carefully other views and new ideas. In addition to your



viewpoint, there may be other viewpoints that are equally important and need to be taken into consideration if you are to develop a more complete understanding of a situation.

As children we understand the world from only our own point of view. As we grow, we come into contact with people who have different viewpoints and begin to realize that our viewpoint is often inadequate, we are frequently mistaken, and our perspective is only one of many. If we are going to learn and develop, we must try to understand and appreciate the viewpoints of others. For example, consider the following situation:

Imagine that you have been employed at a new job for the past six months. Although you enjoy the challenge of your responsibilities and you are performing well, you find that you simply cannot complete all your work during office hours. To keep up, you have to work late, take work home, and even occasionally work on weekends. When you explain this to your employer, she says that although she is sorry that the job interferes with your personal life, it has to be done. She suggests that you view these sacrifices as an investment in your future and that you should try to work more efficiently. She reminds you that there are many people who would be happy to have your position.

1. Describe this situation from your employer's standpoint, identifying reasons that might support her views.
2. Describe some different approaches that you and your employer might take to help resolve this situation.

For most of the important issues and problems in your life, one viewpoint is simply not adequate to provide a full and satisfactory understanding. To increase and deepen your knowledge, you must seek *other perspectives* on the situations you are trying to understand. You can sometimes accomplish this by using your imagination to visualize other viewpoints. Usually, however, you need to seek actively (and *listen* to) the viewpoints of others. It is often very difficult for people to see things from points of view other than their own, and if you are not careful, you can make the very serious mistake of thinking that the way you see things is the way things really are. In addition to identifying with perspectives other than your own, you also have to work to understand the *reasons* that support these alternate viewpoints. This approach deepens your understanding of the issues and also stimulates you to evaluate critically your beliefs.

## THINKING ACTIVITY 1.4

### ANALYZING A BELIEF FROM DIFFERENT PERSPECTIVES



Describe a belief of yours about which you feel very strongly. Then explain the reasons or experiences that led you to this belief.

Next, describe a point of view that is *different* from your belief. Identify some of the reasons that someone might hold this belief. A student example follows.

#### A BELIEF THAT I FEEL STRONGLY ABOUT

I used to think that we should always try everything in our power to keep a person alive. But now I strongly believe that a person has a right to die in peace and with dignity. The reason why I believe this now is because of my father's illness and death.

It all started on Christmas Day, December 25, when my father was admitted to the hospital. The doctor's diagnosed his condition as a heart attack. Following this episode, he was readmitted and discharged from several different hospitals. On June 18, he was hospitalized for what was initially thought to be pneumonia but which turned out to be lung cancer. He began chemotherapy treatments. When complications occurred, he had to be placed on a respirator. At first he couldn't speak or eat. But then they operated on him and placed the tube from the machine in his throat instead of his mouth. He was then able to eat and move his mouth. He underwent radiation therapy when they discovered he had three tumors in his head and that the cancer had spread all over his body. We had to sign a paper which asked us to indicate, if he should stop breathing, whether we would want the hospital to try to revive him or just let him go. We decided to let him go because the doctors couldn't guarantee that he wouldn't become brain-dead. At first they said that there was a forty percent chance that he would get off the machine. But instead of that happening, the percentage went down.

It was hard seeing him like that since I was so close to him. But it was even harder when he didn't want to see me. He said that by seeing me suffer, his suffering was greater. So I had to cut down on seeing him. Everybody that visited him said that he had changed dramatically. They couldn't even recognize him.

The last two days of his life were the worst. I prayed that God would relieve him of his misery. I had come very close to taking him off the machine in order for him not to suffer, but I didn't. Finally he passed away on November 22, with not the least bit of peace or dignity. The loss was great then and still is, but at least he's not suffering. That's why I believe that when people have terminal diseases with no hope of recovery, they shouldn't place them on machines to prolong their lives of suffering, but instead they should be permitted to die with as much peace and dignity possible.

Somebody else might believe very strongly that we should try everything in our power to keep people alive. It doesn't matter what kind of illness or disease the people have. What's important is that they are kept alive, especially if they are loved ones. Some people want to keep their loved ones alive with them as long as they can, even if it's by a machine. They also believe it is up to God and medical science to determine whether people should live or die. Sometimes doctors give them hope that their loved ones will recover, and many people wish for a miracle to happen. With these hopes and wishes in mind, they wait and try everything in order to prolong a life, even if the doctors tell them that there is nothing that can be done. ◀

Being open to new ideas and different viewpoints means being *flexible* enough to change or modify your ideas in the light of new information or better insight. Each of us has a tendency to cling to the beliefs we have been brought up with and the conclusions we have arrived at. If we are going to continue to



grow and develop as thinkers, however, we have to be willing to change or modify our beliefs when evidence suggests that we should. For example, imagine that you have been brought up with certain views concerning an ethnic group—African American, Caucasian, Hispanic, Asian, Native American, or any other. As you mature and your experience increases, you may find that the evidence of your experience conflicts with the views you have been raised with. As critical thinkers, we have to be *open* to receiving this new evidence and *flexible* enough to change and modify our ideas on the basis of it.

In contrast to open and flexible thinking, *uncritical* thinking tends to be one-sided and close-minded. People who think this way are convinced that they alone see things as they really are and that everyone who disagrees with them is wrong. The words we use to describe this type of person include “dogmatic,” “subjective,” and “egocentric.” It is very difficult for such people to step outside their own viewpoints in order to see things from other people’s perspectives. Part of being an educated person is being able to think in an open-minded and flexible way.

---

## SUPPORTING DIVERSE PERSPECTIVES WITH REASONS AND EVIDENCE

When you are thinking critically, what you think makes sense, and you can give good reasons to back up your ideas. As we have seen and will continue to see throughout this book, it is not enough simply to take a position on an issue or make a claim; we have to *back up our views* with other information that we feel supports our position. In other words, there is an important distinction as well as relationship between *what* you believe and *why* you believe it.

If someone questions *why* you see an issue the way you do, you probably respond by giving reasons or arguments you feel support your belief. For example, take the question of what sort of college to attend: two-year or four-year, residential or commuting. What are some of the reasons you might offer to support your decision to attend the kind of college in which you enrolled?

Although all the reasons you just gave for attending your sort of college support your decision, some are obviously more important to you than others. In any case, even though going to your college may be the right thing for you to do, this decision does not mean that it is the right thing for everyone to do. In order for you to fully appreciate this fact, to see both sides of the issue, you have to put yourself in the position of others and try to see things from their points of view. What are some of the reasons or arguments someone might give for attending a different kind of college?

The responses you just gave demonstrate that, if you are interested in seeing all sides of an issue, you have to be able to give supporting reasons and evidence not just for *your* views, but for the views of *others* as well. Seeing all sides of an issue thus combines these two critical thinking abilities:

- Viewing issues from different perspectives
- Supporting diverse viewpoints with reasons and evidence

Combining these two abilities enables you not only to understand other views about an issue, but also to understand *why* these views are held. Consider the issue of whether seat-belt use should be mandatory. As you try to make sense of this issue, you should attempt to identify not just the reasons that support your view, but also the reasons that support other views. The following are reasons that support each view of this issue.

*Issue:*

Seat-belt use should be mandatory.

Seat-belt use should not be mandatory.

*Supporting Reasons:*

1. Studies show that seat belts save lives and reduce injury in accidents.

*Supporting Reasons:*

1. Many people feel that seat belts may trap them in a burning vehicle.

Now see if you can identify additional supporting reasons for each of these views on making use of seat belts mandatory.

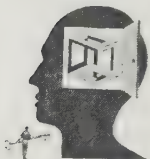
*Supporting Reasons:*

- 2.
- 3.
- 4.

*Supporting Reasons:*

- 2.
- 3.
- 4.

### THINKING ACTIVITY 1.5 ANALYZING DIFFERENT SIDES OF AN ISSUE



For each of the following issues, identify reasons that support each side of the issue.

*Issue:*

1. Multiple-choice and true/false exams should be given in college-level courses.

Multiple-choice and true/false exams should not be given in college-level courses.

2. Immigration quotas should be reduced.

*Issue:*

Immigration quotas should be increased

3. The best way to deal with crime is to give long prison sentences.

*Issue:*

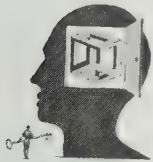
Long prison sentences will not reduce crime.

4. When a couple divorces, the children should choose the parent with whom they wish to live.

*Issue:*

When a couple divorces, the court should decide all custody issues regarding the children. ◀

### THINKING ACTIVITY 1.6 ANALYZING DIFFERENT PERSPECTIVES



Working to see different perspectives is crucial in helping you get a more complete understanding of the ideas being expressed in the passages you are reading. Read each of the following passages and then do the following:

1. Identify the main idea of the passage.
2. List the reasons that support the main idea.
3. Develop another view of the main issue.
4. List the reasons that support the other view.

- Most wicked deeds are done because the doer proposes some good to himself. The liar lies to gain some end; the swindler and thief want things which, if honestly got, might be good in themselves. Even the murderer may be removing an impediment to normal desires or gaining possession of something which his victim keeps from him. None of these people usually does evil for evil's sake. They are selfish or unscrupulous, but their deeds are not gratuitously evil. The killer for sport has no such comprehensible motive. He prefers death to life, darkness to light. He gets nothing except the satisfaction of saying, "Something which wanted to live is dead. There is that much less vitality, consciousness, and, perhaps, joy in the universe. I am the Spirit that Denies." When a human wantonly destroys one of humankind's own works we call him Vandal. When he wantonly destroys one of the works of God we call him Sportsman.
- More than at any other time in history, America is plagued by the influence of cults, exclusive groups that present themselves as religions



devoted to the worship of a single individual. Initially, most Americans were not terribly concerned with the growth of cults, but then in 1979, more than nine hundred cult members were senselessly slaughtered in the steamy jungles of a small South American country called Guyana. The reason for the slaughter was little more than the wild, paranoid fear of the leader, the Reverend Jim Jones, who called himself father and savior. Since that time, evidence has increased that another cult leader, the Reverend Sun Myung Moon, has amassed a large personal fortune from the purses of his followers, male and female “Moonies,” who talk of bliss while peddling pins and emblems preaching the gospel of Moon. Cults, with their hypnotic rituals and their promises of ecstasy, are a threat to American youth, and it is time to implement laws that would allow for a thorough restriction of their movements. ◀

---

## DISCUSSING IDEAS IN AN ORGANIZED WAY

Thinking critically often takes place in a social context, not in isolation. Although it is natural for every person to have his or her own perspective on the world, no single viewpoint is adequate for making sense of complex issues, situations, or even people. As we will see in the chapters ahead, we each have our own “lenses” through which we view the world—filters that shape, influence, and often distort the way we see things. The best way to expand one’s thinking and compensate for the bias that we all have is to discuss our experiences with other people.

This is the way in which thinking develops: being open to the viewpoints of others and being willing to listen and to exchange ideas with them. This process of give-and-take, of advancing our views and considering those of others, is known as *discussion*. When we participate in a discussion, we are not simply talking; we are exchanging and exploring our ideas in an organized way.

Unfortunately, our conversations with other people about important topics are too often not productive exchanges. They often degenerate into name calling, shouting matches, or worse. Consider the following dialogue:

*Person A:* I have a friend who just found out that she’s pregnant and is trying to decide whether she should have an abortion or have the baby. What do you think?

*Person B:* Well, I think that having an abortion is murder. Your friend doesn't want to be a murderer, does she?

*Person A:* How can you call her a murderer? An abortion is a medical operation.

*Person B:* Abortion *is* murder. It's killing another human being, and your friend doesn't have the right to do that.

*Person A:* Well, you don't have the right to tell her what to do—it's her body and her decision. Nobody should be forced to have a child that is not wanted.

*Person B:* Nobody has the right to commit murder—that's the law.

*Person A:* But abortion isn't murder.

*Person B:* Yes, it is.

*Person A:* No, it isn't.

*Person B:* Good-bye! I can't talk to anyone who defends murderers.

*Person A:* And I can't talk to anyone who tries to tell other people how to run their lives.

If we examine the dynamics of this dialogue, we can see that the two people here are not really

- Listening to each other
- Supporting their views with reasons and evidence
- Responding to the points being made
- Asking—and trying to answer—important questions
- Trying to increase their understanding rather than simply winning the argument

In short, the people in this exchange are not *discussing* their views; they are simply *expressing* them, and each is trying to influence the other person into agreeing. Contrast this first dialogue with the following one. Although it begins the same way, it quickly takes a much different direction.

*Person A:* I have a friend who just found out that she's pregnant and is trying to decide whether she should have an abortion or have the baby. What do you think?

*Person B:* Well, I think that having an abortion is murder. Your friend doesn't want to be a murderer, does she?

*Person A:* Of course she doesn't want to be a murderer! But why do you believe that having an abortion is the same thing as murder?

*Person B:* Because murder is when we kill another human being, and when you have an abortion, you are killing another human being.

*Person A:* But is a fetus a human being yet? It certainly is when it is born. But what about before it's born, while it's still in the mother's womb? Is it a person then?

*Person B:* I think it is. Simply because the fetus hasn't been born doesn't mean that it isn't a person. Remember, sometimes babies are born prematurely, in their eighth or even seventh month of development. And they go on to have happy and useful lives.

*Person A:* I can see why you think that a fetus in the *last stages* of development—the seventh, eighth, or ninth month—is a person. After all, it can survive outside the womb with special help at the hospital. But what about at the *beginning* of development? Human life begins when an egg is fertilized by a sperm. Do you believe that the fertilized egg is a person?

*Person B:* Let me think about that for a minute. No, I don't think that a fertilized egg is a person, although many people do. I think that a fertilized egg has the *potential* to become a person—but it isn't a person yet.

*Person A:* Then at what point in its development do you think a fetus *does* become a person?

*Person B:* That's a good question, one that I haven't really thought about. I guess you could say that a fetus becomes a person when it begins to look like a person, with a head, hands, feet, and so on. Or you might say that a fetus becomes a person when all of its organs are formed—liver, kidneys, lungs, and so on. Or you might say that it becomes a person when its heart begins to start beating or when its brain is fully developed. Or you might say that its life begins when it can survive outside the mother. I guess determining when the fetus becomes a person all depends on the *standard* that you use.

*Person A:* I see what you're saying! Since the development of human life is a continuous process that begins with a fertilized egg and ends with a baby, deciding when the fetus becomes a person depends on at what point in the process of development you decide to draw the line. But *how* do you decide where to draw the line?

*Person B:* That's a good place to begin another discussion. But right now I have to leave for class. See you later.

How would you contrast the level of communication taking place in this dialogue with that in the first dialogue? What are the reasons for your conclusion?

Naturally, discussions are not always quite this organized and direct. Nevertheless, this second dialogue does provide a good model for what can take place in our everyday lives when we carefully explore an issue or a situation with someone else. Let us take a closer look at this discussion process.



### *Listening Carefully*

Review the second dialogue and notice how each person in the discussion *listens carefully* to what the other person is saying and then tries to comment directly on what has just been said. When you are working hard at listening to others, you are trying to understand the point they are making and the reasons for it. This enables you to imagine yourself in their position and see things as they see them. Listening in this way often brings new ideas and different ways of viewing the situation to your attention that might never have occurred to you. An effective dialogue in this sense is like a game of tennis—you hit the ball to me, I return the ball back to you, you return my return, and so on. The “ball” the discussants keep hitting back and forth is the subject they are gradually analyzing and exploring.

### *Supporting Views with Reasons and Evidence*

Critical thinkers support their points of view with evidence and reasons and also develop an in-depth understanding of the evidence and reasons that support other viewpoints. Review the second dialogue and identify some of the reasons used by the participants to support their points of view. For example, Person B expresses the view that “abortion is murder” and supports this view with the reasoning that “murder is killing another human being”; if a fetus is a human being, removing it from the womb prematurely is the same thing as murder.

### *Responding to the Points Being Made*

When people engage in effective dialogue, they listen carefully to the people speaking and then respond directly to the points being made instead of simply trying to make their own points. In the second dialogue, Person A responds to Person B’s view that “abortion is murder” with the question “But is a fetus a human being yet?” When you respond directly to other people’s views, and they to yours, you extend and deepen the explorations into the issues being discussed. Although people involved in the discussion may not ultimately agree, they should develop a more insightful understanding of the important issues and a greater appreciation of other viewpoints. Examine the sample dialogue and notice how each person keeps responding to what the other is saying, creating an ongoing, interactive discussion.

## Asking Questions

Asking questions is one of the driving forces in your discussions with others. You can explore a subject first by raising important questions and then by trying to answer them together. This questioning process gradually reveals the various reasons and evidence that support each of the different viewpoints involved. For example, although the two dialogues begin the same way, the second dialogue moves in a completely different direction from that of the first when Person A poses the question: “But *why* do you believe that having an abortion is the same thing as murder?” Asking this question directs the discussion toward a mutual exploration of the issues and away from angry confrontation. Identify some of the other key questions that are posed in the dialogue.

A guide to the various types of questions that can be posed in exploring issues and situations begins on page 9 of this chapter.

## Increasing Understanding

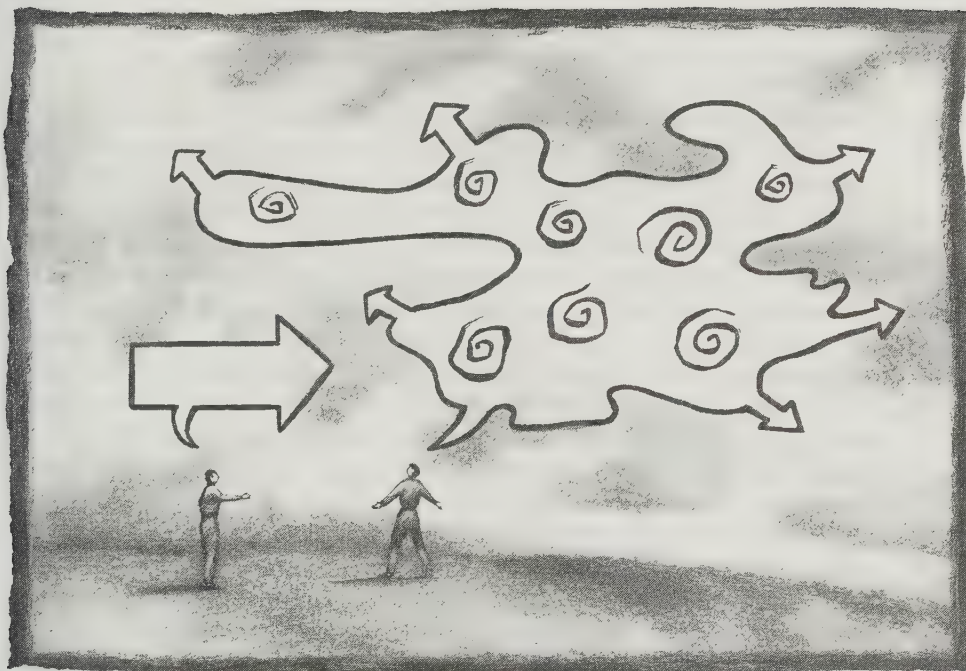
When we discuss subjects with others, we often begin by disagreeing with them. In fact, this is one of the chief reasons that we have discussions. In an effective discussion, however, our main purpose should be to develop our understanding—not to prove ourselves right at any cost. If we are determined to prove that we are right, then we are likely not to be open to the ideas of others and to viewpoints that differ from our own.

Imagine that instead of ending, the second dialogue had continued for a while. Create responses that expand the exploration of the ideas being examined, and be sure to keep the following discussion guidelines in mind as you continue the dialogue.

- When we discuss, we have to listen to each other.
- When we discuss, we keep asking—and trying to answer—important questions.
- When we discuss, our main purpose is to develop a further understanding of the subject we are discussing, not to prove that we are right and the other person is wrong.

*Person A:* I see what you’re saying! Since the development of human life is a continuous process that begins with a fertilized egg and ends with a baby, deciding when the fetus becomes a person depends on the point in the process of development at which you decide to draw the line. But *how* do you decide where to draw the line?

Etc.



*Success in college and careers involves expressing ideas clearly and listening to the ideas of others.*

### THINKING ACTIVITY 1.7 *CREATING A DIALOGUE*



Select an important social issue and write a dialogue that analyzes the issue from two different perspectives. As you write your dialogue, keep in mind the qualities of effective discussion: listening carefully to the other person and trying to comment directly on what has been said, asking and trying to answer important questions about the subject, and trying to develop a fuller understanding of the subject instead of simply trying to prove yourself right.

After completing your dialogue, read it to the class (with a classmate as a partner). Analyze the class's dialogues by using the criteria for effective discussions that we have examined. ◀

---

## THINKING CRITICALLY ABOUT HUMAN RELATIONSHIPS

Relating to other people is by far the most complicated and challenging kind of relating that we do. In making sense of our connections to other people, we use all of the thinking patterns explored in this chapter and throughout this book. Your thinking abilities provide you with the power to untangle the complex mysteries of the relationships in your life. By thinking clearly about your social connections, you can avoid miscommunications and solve interpersonal problems when they arise. Many emotional difficulties—including insecurity, depression, anger, jealousy, selfishness, rigidity, insensitivity, narrow-mindedness, and immaturity—are the product of confused thinking. Since it is these “negative” emotions that are responsible for the majority of relationship problems, transforming these “negatives” into “positives”—security, optimism, love, respect, support, generosity, flexibility, empathy, creativity, and maturity—makes it possible for you to have a wide range of positive, healthy relationships. Clear thinking can’t make you fall in love with someone you judge to be a good candidate. But clear thinking *will* make it *possible* for you to fall in love and have a sustained, nurturing, intimate relationship. Clear thinking *will* make it possible for others to appreciate your best qualities, for them to experience you as a thoughtful, caring, intellectually vital person.

In order to understand the enigma of the human mind and the mystery of human relationships, we need to employ a logic which captures the organic connections between people. Human relationships are dynamic encounters between living persons, and virtually every significant encounter changes all participants, for better or for worse. As Carl Jung observed, “The meeting of two personalities is like the contact of two chemical substances: if there is any reaction, both are transformed.” This is particularly true with close, long-term relationships in which your life literally “grows” into another’s, and his or her life becomes part of yours. That’s why the breakup of such close relationships through separation or death causes such wrenching pain and despair. It is as if a closely knitted fabric is being torn apart, leaving jagged tears and loose threads along with a profound sense of loss and incompleteness. We often don’t realize the extent to which our lives have intertwined with those of others until such a separation occurs because the process of shared growth has been so natural, so gradual.

The transformational nature of human encounters occurs in less intimate relationships as well. For example, think of someone you have dealings with on a daily basis with whom you are not personally close—perhaps a coworker or



supervisor at your workplace or a staff member at the school where you donate your time. Even relatively straightforward encounters with such a person typically involve complex communication, practical negotiations, emotional reactions, and all of the other basic elements of relationships. Over time these encounters, and your reflections on them, *change you* as a person, influencing your ongoing creation of who you are. Even momentary encounters with others affect you: the Good Samaritan who shows you an unexpected kindness or the enraged motorist who tailgates your car's bumper, flashing his lights and making obscene gestures. The Good Samaritan's kindness may stimulate you to consider your moral responsibilities to others, even strangers, and strengthen your resolve to act more charitably. The enraged motorist may get you thinking about the pressures of modern life that cause such hostile behavior in people, insights that may help you control your own frustrations in more positive ways.

When you encounter someone different from yourself, the interaction of ideas, emotions, and attitudes creates a "relationship," a living social creation that is continually changing and evolving.

---

## THE THINKER'S GUIDE TO HEALTHY RELATIONSHIPS

Though you may not have realized it, you have been developing all of the abilities needed for healthy relationships as you have worked through the ideas presented in the various chapters of this book. Here is an outline of the approach we will be using:

### The Thinker's Guide to Healthy Relationships

- Establish goals.
- Communicate clearly.
- View your relationships from all perspectives.
- Build trust through reason.
- Foster creativity and positive attitudes.
- Value freedom and responsibility.
- Problem-solve.

## *Establish Goals for Your Relationships*

Every relationship is unique and mysterious in its own way, but it is possible to understand a great deal about what is going on, why it is happening, and how it will influence what will occur in the future—if *you make an effort to think clearly*. To begin, you should identify what *goals* you have for the relationship. There are general goals that apply to most relationships—being congenial, having clear communication—but there are also goals specific to the relationship in question, whether it is a relationship with a coworker, the doorman, a parent, a close friend, your supervisor, a client, your niece, the babysitter, your ex-spouse, a doctor, or your latest romantic interest. Too often, however, people *don't* identify objectives or stick to a plan, so as a result, they end up spending too much time with people they don't want to be with and not enough time with those they do. Or they may wreck a potentially good relationship by piling on more expectations than one person can possibly fulfill: lover, best friend, therapist, roommate, career counselor—and more! If you define the goals of the relationship more narrowly—and more realistically—the relationship might function more successfully, while imposing excessive expectations might serve as its death warrant.

## *Communicate Clearly with the Other Person(s)*

Faulty communication is responsible for more problems in relationships than any other factor. How often have you heard—or uttered—the lament, “*We just don't seem to communicate*”? Clear communication involves a complex blending of thinking, language, and social skills. For example, people often talk *at* each other, not really listening to the other person because they are concentrating on what they're going to say next. People can know each other for years and yet lack an in-depth understanding of what the other person is *really* thinking and feeling, all because they don't *try* to listen and understand.

In order to engage in a productive discussion, you have to articulate your viewpoint clearly, listen carefully to the response of the other person, and then *respond to her* response or *ask questions* to better understand what she is saying. When both people approach the dialogue in this fashion, within a context of mutual respect and caring, meaningful communication *can* take place. Also, people *do* have different communication styles that you need to acknowledge in order to avoid misunderstanding, conflict, and fractured relationships.

Another essential dimension of communicating effectively is using language that is *clear* and *precise*. When language is vague or ambiguous, people tend to read into the vagueness their own personal meanings, assuming that

other people are thinking exactly the same things that they are. They are often mistaken in this assumption, and as a result, trouble follows closely behind. A simple expression like *"I love you"* can express an astonishing number of different meanings, depending on the individual and the particular context. And if for one person the words *"I love you"* means *"I think you are an engaging person to whom I am attracted,"* while the other person is thinking, *"You are the perfect mate for me, and I expect us to spend eternity together,"* then there's a Force 5 tornado on the horizon that's likely to hit the relationship sooner or later. Disciplining yourself to speak and behave in ways that are clear, precise, and unambiguous will work wonders in avoiding miscommunications that can begin as small problems but then snowball into much larger ones.

### *View Your Relationships from All Perspectives*

The success of most close relationships—romantic, familial, and friendships—is directly related to the extent to which you can imaginatively place yourself in the other person's situation and fully appreciate what he or she is experiencing. This in-depth empathy is what emotionally close relationships are all about. In contrast, when two people are both excessively concerned with their own self-interests—with what the other person can do for *"me"*—then the relationship is in serious trouble. Healthy relationships are based on *shared* interests, not only on *self-interest*. It is your ability to identify with the other person that acts as a catalyst for your love, compassion, and understanding—the emotions that form the heart of every vital relationship.

Think back to the last significant altercation you had with someone you are close to. You undoubtedly believed that you viewed the issue with a clarity that the other person didn't possess and that while you were trying to be the soul of reason and restraint, the other person was trying to coerce you into viewing things in his or her confused way. Naturally, the other person was likely experiencing the situation in *nearly the same way that you were*. Once two (or more) people establish these one-sided and self-serving postures, things generally deteriorate until a culminating crisis forces each person to become truly aware of the other.

As a critical thinker, you can make an extra effort to view things differently by asking the other person *why* he or she has arrived at that point of view and then placing yourself in his or her position. Then you can ask the other person, *"If you were in my position, how would you view the situation, and what would you do?"* Exchanging roles in this way, thinking and feeling empathetically within another's perspective, changes the entire tone of the discussion. Instead

of exchanges becoming increasingly more rancorous (“*You don’t understand anything.*” “*You are insensitive and blind.*”), there is an excellent chance that both of you will work together in a more harmonious and collaborative way to achieve mutual understanding.

### *Build Trust Through Reason in Your Relationships*

Of course, relationships cannot be fully understood through reason any more than reason can fully disclose the mysteries of an exquisite work of art, a moving musical passage, a transcendent spiritual experience, or the spontaneous eruption of delight occasioned by humor. Your reasoning ability is powerful, but it has limits as well, and it is important to appreciate those limits and to respect them. People who try to reduce every dimension of the rich tapestry of human experience to logical categories and rational explanations are pursuing fool’s gold. Still, reason helps you make sense of the contours and patterns of your emotional life, as well as many other elements that form the phenomenon of human relationships.

Suppose someone whom you feel close to does something that wounds you deeply. When you confront the friend and ask *why* she did what she did, further imagine that her response is, “*I can’t give you any reason—I just did it.*” How would you feel? Probably bewildered and angry, and for good “reason.” That’s because we expect people—including ourselves—to *try* and understand why they do things that they do so that they can exert some control over their choices. People hurt other people who are close to them for many different reasons: they may have been acting thoughtlessly, selfishly, stupidly, callously, unconsciously, sadistically, or any number of other ways. There *are* reasons why people behave as they do, and your confidence and trust in others depends on this conviction. If your friend says to you, “*I hurt you, and I’m very sorry. I was only thinking of myself during that moment and did not fully appreciate how my actions might affect you. It was a mistake, and I won’t repeat it in the future*”—then you have a foundation upon which you can build the future of your relationship. But if your friend says to you, “*I hurt you for no reason that I can identify, and I don’t know if it will happen again,*” then that makes it very difficult for you to continue trusting her. Remaining in such a relationship is like playing Russian roulette—you don’t know when another live round is going to end up behind the firing pin and tear into your heart.

Reason is the framework that makes relationships possible. The more intimate the relationship, the more important the role reason plays. This is so



because in intimate relationships you are most vulnerable; your emotions are laid bare. Reason is the safety net that gives you the courage to take those halting and dangerous steps on the high wire. You build trust in the other person because you believe his or her choices are governed, or at least are influenced by reason, and you depend on that assurance. Of course, even the best of intentions can be overwhelmed by mindless passion, unruly emotions, or unexpected compulsions. But even though emotions may erupt and temporarily swamp your rational faculties, your will and determination can once again set things right, reasserting the primacy of reason in directing your emotions so that your choices reflect your highest values. That's why thoughtful people continue onto the high wire again, even after they have fallen, because they have confidence in the rule of reason's guiding well-intentioned people.

### *Foster Creativity and Positive Attitudes in Your Relationships*

Think back to the last time you began a new relationship. Wanting to make a good impression, it is likely that you invested a great deal of creative energy in nurturing the budding romance or friendship—giving handmade cards or surprise gifts, planning unique activities, making an extra effort to have engaging conversations. Now reflect on the long-term relationships in which you are currently involved: Do you find that a certain staleness has set in? That you have fallen into routine patterns of activity, doing the same things on a fixed schedule? Do your conversations revolve around the same few topics, with the same comments being made with predictable regularity? Have the handmade cards, spontaneous presents, and little surprises disappeared? If so, don't be too hard on yourself: this deterioration is very common in relationships.

The expression *Familiarity breeds contempt* points to the chronic human trait of taking for granted the people who are most important to us, letting habit and routine sap the vitality of our relationships. Since relationships are dynamic and alive, treating them as if they were machines running on past momentum will eventually cause them to become rusty and stop working altogether. In many cases, however, they can be revived by your *choosing* to again bring the same creative energy to them that you invested at the beginning of the relationship and by encouraging your partner to realize his or her creative potential. The result can be a creative fusion between the two of you that will inspire you both with its power.

## *Value Freedom and Responsibility in Your Relationships*

Healthy relationships are ones in which the participants willingly take responsibility for themselves and value the freedom of others. Responsibility is the logical consequence of freedom, and while people cherish their personal freedom, they tend to flee from responsibility when things don't go according to plan. Consider the following situations: You are working collaboratively with a number of other students on an important project. When your project turns out to be an embarrassing failure, your professor wants to know who's to blame for the fiasco. With your career on the line, what do you say? Or imagine that you are the parent of a child with an approaching birthday. You promised to purchase tickets to a special concert, but you procrastinate, and by the time you get around to going to buy the tickets, they're sold out. What explanation do you give your child? If you found yourself instinctively trying to minimize your personal responsibility in these situations (and to maximize the responsibility of other people), it's not surprising. These are common human reactions. But healthy relationships are based on a willingness to *assume responsibility*, not evade it. By fully acknowledging your responsibility, you gain stature in the eyes of others and encourage them to accept responsibility for their own actions as well. However, if you chronically *avoid* taking responsibility for your mistakes and failings, you erode the trust and goodwill in relationships, and you shrink in stature.

Accepting responsibility means promoting freedom. Pursuing your own personal freedom is a natural and appropriate thing to do. But to foster healthy relationships with others, it is equally important to promote and respect *their* freedom. For example, suppose that you are absolutely certain you know what is best for someone. Are you justified in subtly shaping and manipulating the person's thoughts and emotions so that he or she will make the "right" decision? In the long run, this course of action might not be what's best for the relationship—or for the other person. To maintain healthy relationships, you must value the autonomy of other people to make their own decisions, independent of your own wishes. Once others discover, as they likely will, that you are trying to pressure or manipulate them, you run the risk of undermining the mutual trust on which relationships are based.

## *Problem-Solve in Your Relationships*

Problems are a natural part of life, and they are an unavoidable reality in relationships as well. The only question is how you are going to deal with the problems that you will inevitably encounter. You can approach problems with fear

and loathing, letting them intimidate you and contaminate your relationships. Or you can approach these same problems with the confidence of a critical thinker, viewing them as opportunities to clarify important issues and improve your relationships. Friedrich Nietzsche's observation, "What doesn't kill you, makes you stronger," applies to relationships as well. The strongest, most resilient relationships are those that have been tested, have overcome adversity, and ultimately have triumphed through the efforts of all parties. The most vulnerable relationships are those that have *not* been tested because the participants have denied themselves the opportunity to develop coping skills and the confidence that "the first serious wave won't capsize the boat." Repeated successes with problems both large and small breed confidence in your problem-solving abilities—and in the resilience of your most significant relationships.

### THINKING ACTIVITY 1.8 *IMPROVING YOUR RELATIONSHIPS*



Select one of the important relationships in your life that you would like to improve. Using the strategies described in "The Thinker's Guide to Healthy Relationships," develop a plan to improve your relationship. Ask yourself the following questions:

- What are my goals for this relationship?
- In what ways can I communicate more clearly?
- What is the other person's perspective on the relationship?
- How can I build more trust through reason?
- In what ways can I approach this relationship more creatively?
- How can I accept more responsibility in this relationship?
- What problems exist in the relationship, and how can we solve them? ◀

### LOOKING CRITICALLY @ COMMUNICATING ON THE INTERNET



"Since brevity is the soul of wit, and tediousness the limbs and outward flourishes,—I will be brief." So said William Shakespeare in *Hamlet* (II. ii. 90). It's very possible that he predicted the coming of the electronic age with its communication tools like email, instant messaging, chat groups, and message boards. The fewer words used to convey an idea, the faster the idea can be received by the audience. And speed is of the essence in the modern world.

**Email** (electronic mail, by definition) is generally composed of short writings that are to the point, without formalities, typed into a memo-like template, and sent out to one or many addresses via an Internet service. But you need to consider a few things before taking mouse in hand. What kind of “letter” are you composing (business or personal)? Who is the recipient (a friend, a schoolteacher, a prospective employer, a business)? What kind of service is going to “send” your email, and what kind of service does your reader use? Let’s talk about why these points are important.

Because some carriers, for your safety and privacy, let you adopt a *nom de plume* (called a *screen name* in cyberspeak), it is important that you clearly identify yourself to the recipient—and in formal writings, that means including your full “real” name. Keep in mind that the appearance of email can vary, depending upon the capability of the carrier as well as the receiver’s computer and printer. It is important that only basic “typing” be used—black text, Arial or another basic font, no bold, no underlining, no italics, no tables, no varying sizes of lettering. Features that you use to enhance an email may not “translate” over the airwaves to your reader and may actually garble your text. Also, be cautious about how and what you are trying to say: the “tone” of your thoughts may not be understood if you write casually. Use acronyms and symbols sparingly; not everyone has yet learned the language of cyberspace, and peppering your paragraphs with “smileys” (faces drawn with the alphabet:-) or ASCII art (pictures drawn with the letters and symbols of the keyboard) can look like gibberish to the uninitiated.

Why use email at all? It’s fast, it saves you time (no more searching for postage stamps, envelopes, or paper), it lets people communicate at their own convenience (at 2 A.M. or 4 P.M.), and it’s inexpensive (often just pennies for the cost of a local phone call). You can maintain a current, daily correspondence with your friends in Brazil, Germany, or next door without the worry of losing mail or the expense and chore of weighing packages and trekking to a post office. There is usually just a minimal time lag between the moment you press the Send button and the moment the recipient finds out she has “got mail.”

For school and the workplace, email can be a savior. In addition to copying and pasting words into the email template, you can generally “attach” an electronic file (created in word processing or in a spreadsheet program, for example) as a tag along. This is a great way to hand in that term paper or take-home test, reply to a classified ad by sending your résumé to a prospective employer, or return a completed grant application. Be sure, however, to tell readers which software you used to create the attachment because they will have to use a compatible program to open the file. The days of “Please send your document by fax” are almost gone; today, everyone wants a copy of your “plain text” résumé via email. So be sure to lay it out simply, check the spelling



and the syntax, and include a polite cover letter with your name, address, phone number, and any other ways the recruiter, company, school, or other person can contact you.

And what about **chat rooms**? As you may well know by now, *chat rooms*, *forums*, and *conference rooms* are means of communicating “live and in person” while signed onto an Internet service such as America Online. People with common interests (everything ranging from belonging to similar age groups to geography to hobbies) gather together in groups and “talk” to each other, generally with a “host” to introduce the “newbies” (newcomers), keep the chatter going, monitor the language, and ensure that behavior stays reasonable. The “room” display is set up much like a movie script, with a running dialogue shown along with the names of those people in the room and a space provided for you to type in a sentence or two and “send” your message to the room for viewing. In some cases, you can also initiate another feature called “Instant messaging” (IM) which allows you to send a quickly typed message to a friend whom you know is also online. You can then continue the conversation with only that person. Think of how much money you both can save on long distance phone charges if you both are only using a local phone call to connect to the Internet and “chat” with someone who lives far away!

Another interesting way to communicate on the Internet is to use **message** or **bulletin boards**. Much like the old-fashioned cork-board-and-paper notes you see in school or supermarket lobbies, these “boards” allow you to jot down a question or post a message and put it “out there” for the general public to see and respond to. Such message boards are often organized by topic, so you can find them by searching an online service’s index. One of the largest is Usenet, a network of newsgroups or electronic bulletin boards accessible through the Internet. (A newsreader program needs to be installed on the local computer system in order to access Usenet.) Selling a car? Arranging a high school reunion? Looking for a recipe for cookies? Want to find roommates for a vacation time-share? Having problems with a software application? Moving to a new town and want to find out what community groups are there? Many bulletin boards allow the person responding to your posting to also select a “return by email” feature. So, aside from your getting a personal answer to your question, you can also “browse” these boards to see if other people have posted questions and/or answers that can help you. These boards can be a great learning and research tool for someone who is just beginning to explore cyberspace. There’s nothing like the experience of others to help you with your daily grind!

Finally, there is the issue of **netiquette** (a new word coined from Internet and etiquette). As the electronic age expands throughout the world, rules seem to develop on their own to go along with this new means of communication. Typing in all capitals is considered RUDE and means you are SHOUTING.

“Scrolling”—typing the same thing over and over and over while in a chat room, thereby preventing others from “speaking” and making a nuisance of yourself—is also prohibited. Sending unsolicited mass mailings to people—called “spamming”—is a strict “no-no.” Chain letters are also frowned upon. Foul language, profanity, and generally crass and juvenile behavior can result in a person’s being temporarily cut off from an Internet service or even losing her online privileges permanently. Of course, anything illegal can even have the police knocking on your door. The Internet is a public space, and government regulation is only recently being developed to counter those who abuse the freedom of speech we cherish in our country. So, the trick is to use common sense when communicating over the Web and “speak” as you would to someone face to face—with self-control and politeness, exuberance and creativity, and simplicity—so that the message gets across!

As an assignment before the next class:

- *Email* at least one other student in the class.
- Participate in at least one *chat room*.
- Post at least one message on a *message* or *bulletin board*.

If you encounter difficulties in performing any of these activities, you can get help in the computer center at your college.

Describe your experiences and reactions to each of these experiences, and then engage in some critical thinking and write out your responses: how can these forms of electronic communication improve your academic performance? Enrich your social life? Save you time and money? Enhance your communication skills? Now think critically about some of the potential liabilities or risks involved with this type of communication. Do you see the possibility of your spending *too* much time online—a kind of “Net addiction”? How might email contribute to misunderstandings or cause you to express something that you might later regret? What precautions should you take before giving your real name, phone number, or address to someone you have met online? What are some of the dangers of meeting an online “friend” in person?

---

## BECOMING A CRITICAL THINKER

In this chapter we have discovered that critical thinking is not just one way of thinking—it is a total approach to the way we make sense of the world, and it

involves an integrated set of thinking abilities and attitudes that include the following:

- *Thinking actively* by using our intelligence, knowledge, and skills to question, explore, and deal effectively with ourselves, others, and life's situations
- *Carefully exploring situations* by asking—and trying to answer—relevant questions
- *Thinking independently* by carefully examining various ideas and arriving at our own thoughtful conclusions
- *Viewing situations from different perspectives* to develop an in-depth, comprehensive understanding and *supporting viewpoints with reasons and evidence* to arrive at thoughtful, well-substantiated conclusions
- *Discussing ideas in an organized way* in order to exchange and explore ideas with others

These critical thinking qualities are a combination of cognitive abilities, basic attitudes, and thinking strategies that enable you to clarify and improve your understanding of the world. By carefully examining the process and products of your thinking—and the thinking of others—you develop insight into the thinking process and learn to do it better. Becoming a critical thinker does not simply involve mastering certain thinking abilities, however; it affects the entire way that you view the world and live your life. For example, the process of striving to understand other points of view in a situation changes the way you think, feel, and behave. It catapults you out of your own limited way of viewing things, helps you understand others' viewpoints, and broadens your understanding. All of these factors contribute to your becoming a sophisticated thinker and mature human being.

Becoming a critical thinker is a lifelong process. Developing the thinking abilities needed to understand the complex world you live in and to make informed decisions requires ongoing analysis, reflection, and practice. The qualities of critical thinking that you have explored in this chapter represent signposts in your journey to become a critical thinker.

Critical thinkers are better equipped to deal with the difficult challenges that life poses: to solve problems, to establish and achieve goals, and to make sense of complex issues. The foundation of thinking abilities and critical attitudes introduced in these first two chapters will be reinforced and elaborated upon in the chapters ahead, helping to provide you with the resources to be successful at college, in your chosen career, and throughout the other areas of your life as well.

---

## CREATING A THINKING WORLD

Becoming a critical thinker is not an isolated activity that is accomplished in a social vacuum. It's just the opposite! We are naturally social creatures, tied to one another in profound and complex ways. Fulfilling your potential as a critical thinker and living a meaningful life means developing productive relationships with others. As we have seen, critical thinkers are people who consistently make the effort to view situations from others' perspectives, to think—and feel—empathetically within their own point of view. This empathetic understanding is the basis for developing healthy relationships and an in-depth understanding of the world.

Unfortunately, many people are not striving to become critical thinkers, and as a result, a great amount of thoughtless, self-absorbed behavior is rampant in our society. In contrast, let's imagine a world in which *everyone* was committed to the critical thinking ideal of thoughtful reflection and empathetic understanding. What would such a world be like?

It would be a world in which people would not act rashly or speak foolishly without thinking. They would be reflective, carefully considering different points of view and thinking deeply about important issues. People would listen to what you had to say and would treat your views with respect, and if they disagreed with your point of view, they would explain why by providing intelligent reasons. At work, your boss would provide you with personal support and opportunities to take initiative, guiding you when you made mistakes, encouraging you to excel, and awarding you full credit for your accomplishments. Your relationships with family members would always be loving and honest as you worked together harmoniously for common purposes. Your relationship with your romantic partner would be intimate and supportive, expressing deep commitment and emotional honesty. Parents would nurture their children with unconditional love and raise them to respect the needs of others. People of all ages would display enlightened values, empathizing with the needs of others and trying to help those less fortunate. Lying, cheating, stealing, personal violence: none of these would exist; instead, they would be replaced by kindness, generosity, consideration, and goodwill. This would be a world filled with open-minded people who would welcome diverse ideas, customs, and personal differences. Racism, sexism, ageism, and all other forms of discrimination would be things of the past as all people would be treated with tolerance and consideration.

On a social level, all people would see themselves as members of the same community, with a responsibility for the well-being of all members, not just for themselves. Everyone would work together to create a better life for all. Wise



and principled political leaders would be elected by a thoughtful citizenry, and they would govern with insight, honesty, and compassion. Children would be educated in a system that encouraged their individual talents and respected their unique value. Television shows would be designed to stimulate thinking and expand understanding as well as to entertain. People on talk shows would express thoughtful, articulate opinions, never stooping to superficial analyses or personal insults. On the road, people would drive with safety and consideration, never letting their anger or desire to move ahead more quickly take hold of them at the expense of others. When people did make mistakes, they would always accept responsibility, never trying to blame others for their own errors. Those who violated the law would be tried by juries who were astute thinkers, weighing the evidence judiciously and reaching fair-minded and well-supported verdicts.

On a personal level, you would be confident of your place in society and taken seriously by others who respected your special qualities. People would treat you with consideration, and you would reciprocate, with feelings of goodwill overwhelming any doubts or suspicions. You would think the best of people, and they would respond in kind. You would live your life under what philosophers used to call “the aspect of eternity,” reflecting on the purpose of your existence and your connections to humanity and the universe. When working with others, your productive discussions would always move toward the most logical and informed conclusions. You would be able to navigate intelligently through the daily avalanche of information, separating the useful from the irrelevant. You would have a deep understanding of complex social issues and would enjoy exploring their nuances through constructive conversations. You would live your life creatively, expressing yourself freely without fear of social condemnation. Your life would be vibrant, filled with satisfying relationships and accomplishments in which you would take great pride. You would enjoy the admiration of others as you steered a purposeful course which reflected your profound self-understanding. You would feel secure, strong, loved, happy, and fulfilled.

What would a world populated with critical thinkers be like? It would be a sublime world, the kind of world you would love to live in, the kind of world you would want for your children. It would be a world in which all people were able to achieve their personal potential, echoing the words of the writer Henry Miller:

We are all part of things,  
We are all part of creation, all kings, all poets, all musicians,  
We have only to open up, to discover what is already there.

## THINKING PASSAGES *ASSISTED SUICIDE*



One useful strategy for developing our critical thinking abilities is to contrast the views of people who discuss different sides of the same issue. The three articles that follow explore different perspectives on the issue of euthanasia (assisted suicide), focusing on the actions of Dr. Jack Kevorkian. Dr. Kevorkian—or “Dr. Death,” as he is commonly called—has long argued that assisted suicide should be a free and legal choice for patients. Having been acquitted of murder charges several times for providing patients with the means to kill themselves by using a “suicide machine” of his own design, he recently took the dramatic step of having “60 Minutes” televise a tape of him giving a fatal injection to a man with Lou Gehrig’s disease.

The controversy over assisted suicide has existed for several thousand years, but advances in modern medical technology are making these issues more acute today. The term *euthanasia*, first used by Aristotle in Ancient Greece to describe “the good death,” exists in two distinct forms:

- *passive* euthanasia, in which life-sustaining measures are withdrawn, permitting people to die of their own medical problems
- *active* euthanasia, in which active measures are taken to end someone’s life, such as administering a lethal injection

Apply the skills that we have been developing in this chapter by thinking critically about the ideas in the reading selections and then answering the questions that follow.

### PROSECUTOR TO WEIGH POSSIBILITY OF CHARGING KEVORKIAN by Pam Belluck

A Michigan prosecutor said today that he would carefully review the videotapes of Dr. Jack Kevorkian injecting a terminally ill man with a lethal series of drugs, which [were] shown on television tonight, and other evidence before deciding whether to prosecute him.

Dr. Kevorkian said he had given CBS the videotapes, hoping that his actions in the death of the man, Thomas Youk, would lead to his arrest and become a dramatic test for euthanasia and assisted suicide.

“I want a showdown,” Dr. Kevorkian told the *Oakland Press* of Michigan, in his only interview about the broadcast. “I want to be prosecuted for euthanasia. I am going to prove that this is not a crime, ever, regardless of what words are written on paper.”

During the CBS News program *60 Minutes*, Dr. Kevorkian is shown arranging the death of Mr. Youk, 52, of Waterford, Mich., said to be in the advanced stages of Lou Gehrig's disease. Dr. Kevorkian presents a consent form to Mr. Youk, who signed it. He asks Mr. Youk if he needs more time to think about his decision, saying, "Let's not hurry into this."

Then Dr. Kevorkian is shown, two nights later on Sept. 17, injecting Mr. Youk with drugs to make him sleep, then stop breathing, then to stop his heart from beating. When asked during the broadcast if he had killed Mr. Youk, Dr. Kevorkian said, "I did."

Dr. Kevorkian said this was not an assisted suicide, but euthanasia.

Today, the Oakland County prosecutor, David Gorcyca, suggested that the decision about whether to prosecute Dr. Kevorkian in the Youk case was not clear-cut. "We're going to have to review it from beginning to end," Mr. Gorcyca said.

Among the issues: whether Mr. Youk clearly consented to have Dr. Kevorkian help him die, Mr. Gorcyca said. He said his office was trying to obtain two unedited videotapes showing Dr. Kevorkian's conduct in Mr. Youk's death, and would try to get them with a search warrant or a subpoena if *60 Minutes* or Dr. Kevorkian did not surrender them voluntarily. Mr. Gorcyca said one tape showed "Kevorkian advising him how he's going to do it and then there's a tape of how he does it."

A Michigan law that took effect on Sept. 1 is the state's latest effort to outlaw assisted suicide. Between 1994 and 1996, Dr. Kevorkian, whose license to practice medicine has been revoked in Michigan and California, was tried and acquitted three times of charges related to the deaths of five people in Michigan. A fourth case ended in mistrial. He says he has helped more than 130 people kill themselves.

On *60 Minutes*, Dr. Kevorkian said that if he was convicted, he would starve himself to death in prison.

"I am tired of all the hypocrisy," he said to the newspaper, "and we're going to end this, one way or another."

Mr. Youk, who restored old Porsches and was an amateur race car driver, was so weak that the county medical examiner, Dr. Ljubisa Dragovich, said he would not have had the strength to inject himself. Today, the telephone number at the Youk home was out of order and there was no answer at the home of Mr. Youk's brother, Robert.

On the *60 Minutes* broadcast, Mr. Youk's wife, Melody, says that she was "so grateful to know that someone would relieve him of his suffering."

"I don't consider it murder," Ms. Youk said. "I consider it the way things should be done."

The consent form that Mr. Youk signed indicated that he consented to die by "direct injection" instead of using Dr. Kevorkian's "suicide machine," in which patients pull a string or trip a switch to administer the lethal dose themselves, according to the interview in the *Oakland Press*.

He told the newspaper, and *60 Minutes*, that he would prefer if all such patients opted for injections, because they were "faster, cleaner and easier" than the machine.

Dr. Kevorkian said he gave Mr. Youk the injection and videotaped the process, including his struggle to find a suitable vein in Mr. Youk's arm. He said it was the first time he had recorded the "actual event" of a death.

"See, look at the head," he said in the newspaper interview, as he pointed out details in the tape. "You can see he is dying. He is in such a deep sleep, there is no suffering."

When Dr. Kevorkian was asked in the *Oakland Press* interview if Mr. Youk had any last words, he laughed, possibly because Mr. Youk's words were barely intelligible.

"I don't know," he responded. "I never understood a thing he said."

Dr. Kevorkian's lawyer, David Gorosh, said he was not consulted about his client's plans to have the tape broadcast on national television. "I certainly didn't advise him to send the tape to *60 Minutes*," Mr. Gorosh said. "As a legal adviser, I certainly wouldn't advise him to do that."

Mr. Gorosh said he believed that "Dr. Kevorkian is simply indicating 'Either prosecute me and leave it there, or don't prosecute me and let's leave it once and for all.'"

Victor Skirmants, a close friend of Mr. Youk and a fellow auto racer said today that he did not know about Mr. Youk's desire to end his life. But he said he had seen his friend become increasingly incapacitated and suffer greatly in the last two years.

"It's a decision I myself would make," said Mr. Skirmants, 53. I couldn't go beyond the point where I just couldn't function at all. I understand what he did."

Still, Mr. Skirmants said he did not want to watch the *60 Minutes* broadcast. He said he was tremendously relieved when Ms. Youk asked him and his wife not to watch.

"The fact that I don't have to see the video—I'm very thankful," Mr. Skirmants said. "I want to remember him the way I knew him." ■



**60 MINUTES, KEVORKIAN AND A DEATH FOR THE CAMERAS**  
by Caryn James

It is not a gracefully composed camera shot: Dr. Jack Kevorkian blocks the camera's view as he injects his incurably ill patient, Thomas Youk, with lethal drugs. Sitting upright, wearing his glasses and a plaid shirt, Mr. Youk has been given a sedative and his head has lolled back out of camera range; perhaps because we cannot see his face, the off-camera voices commenting as they watch this videotape are more chilling than anything on screen.

"Is he dead now?" Mike Wallace asks.

"He's dying now," Dr. Kevorkian says.

The broadcast of Mr. Youk's death, shown last night on the CBS News Program *60 Minutes*, caused exactly the flurry of media attention Dr. Kevorkian and CBS were looking for. The report was denounced by everyone from George Will on the ABC News program *This Week* to John Cardinal O'Connor from the



*Dr. Jack Kevorkian, left, and Mike Wallace, on the CBS News program 60 Minutes. When asked if he had killed Thomas Youk, 52, of Waterford, Mich., Dr. Kevorkian said, "I did."*

pulpit of St. Patrick's Cathedral, which simply made the critics part of the hype machine.

Mr. Youk, a 52-year-old man suffering the degeneration of Lou Gehrig's disease, asked Dr. Kevorkian to help him die. The doctor seized an opportunity to cross the legal line from assisted suicide, enabling patients to kill themselves, to euthanasia, actively administering a lethal injection.

But deeper boundaries were crossed as well. That this death was staged for the cameras is the most unsettling aspect of the story, a dark corollary to the growing assumption that the untelevised life is not worth living. Mr. Youk's untelevised death did not seem good enough for Dr. Kevorkian. The taping and its broadcast are, in the crudest terms, a stunt death.

The *60 Minutes* broadcast does not come in isolation, though. It is part of a climate in which many of life's most intimate areas are common grist for the media.

When President Clinton's illicit sex life made headlines, he responded in part by publicizing his meetings with spiritual advisers. If sex and religion have gone public, no wonder death has finally made an appearance on a Top 10 program, whose producers cannot be sorry this report appeared in the November sweeps period, when ratings turn into advertising dollars.

The fact that Dr. Kevorkian made the tape himself, and later brought it to *60 Minutes*, is beside the point. Dr. Kevorkian admits on the air that he wants the tape to lead to his arrest. By broadcasting it, CBS goes beyond reporting the news and becomes complicit, the carrier of a death played for the cameras.

It is that staged quality, evident in Mr. Youk's two taped encounters with Dr. Kevorkian, that is especially troubling. The *60 Minutes* report begins with Mr. Youk's first meeting with Dr. Kevorkian, which was videotaped. That tape turns out to be even more distressing than the moment of death. Mr. Youk is barely able to lift his hand, and is obviously struggling to speak and to breathe. He fears choking on his own saliva.

That tape, so painful to watch, makes it clear why Mr. Youk and his family turned to Dr. Kevorkian. Ironically, it makes the case for assisted suicide more powerfully than the death scene, which is so calm it seems anticlimactic as Dr. Kevorkian gives Mr. Youk three injections.

Watching the death adds nothing to the legitimate debate about euthanasia. Think about the equivalent: a news report about a grisly murder that goes on to show dismembered body parts. In televising this death, *60 Minutes* goes beyond reporting into lurid sensationalism. But without the death tape, no one would have noticed yet another feature on Dr. Kevorkian.

The *60 Minutes* report includes a brief attempt at balance. Dr. Mark Siegler, a medical ethicist at the University of Chicago, calls Dr. Kevorkian's

action “a medicalized killing” and says it is “dangerous to patients and dangerous to society.”

But the report races past its most profound and troubling issues, of free will and privacy. Dr. Kevorkian says that when he suggested euthanasia rather than assisted suicide to Mr. Youk, “I sensed a reluctance in him.” Later we see Mr. Youk agreeing as Dr. Kevorkian reads aloud a statement for him to sign, stating there has been no duress, but we haven’t a clue how that reluctance was overcome.

When Mr. Wallace interviews the Youk family after the death, Mr. Youk’s wife says of his choice to die: “Tom’s very private. And also he believes it’s a private issue. You should be able to do what makes sense to you.” She seems unaware of the irony that this private moment would be broadcast to the world.

The media landscape that fosters such a broadcast has changed radically in the past few years.

In 1994, the ABC News program *Prime Time Live* showed part of a Dutch documentary, *Death on Request*, in which a man with Lou Gehrig’s disease died by his doctor’s injection. Since then, the influence of the Internet has been pervasive.

As he was dying of cancer in 1996, Timonthy Leary charted his last days on his Web site, where he planned to show his eventual suicide, though in the end he died off camera. This summer [1998] a baby’s birth was shown on the Internet while it happened. And as the recent trajectory of political gossip has shown, a shaky bridge has been built from the Internet, with its editorial free-for-all, to the mainstream media. (Word of Representative Henry J. Hyde’s decades-old adultery traveled in a flash from the on-line magazine *Salon* to newspapers and television.)

By showing Mr. Youk’s death, *60 Minutes* creeps closer not only to the Internet but also to the lowest and literally cheapest form of television, reality programming. Whether it’s *America’s Funniest Home Videos* or *World’s Wildest Police Videos*, reality programs foster the sense that real life is mere fodder for television; from there it is a small step to a life and now a death literally made for TV.

What is poignantly clear from the report is that Mr. Youk died without his family around him. They were sent away before Dr. Kevorkian began his injections, to avoid the chance they might be implicated in any crime. The television audience eventually watched, but we are not his family, a distinction *60 Minutes* blurred in its frightening conflation of public and private.

The shabby camera work at Mr. Youk’s death spared us the worst horrors. The next televised death may be less amateurish and all the more disturbing as it looks straight into the eyes of a person who has agreed to die for the camera. ■

**IN NO HURRY FOR NEXT LEG OF THE JOURNEY**  
by David Gonzalez

The waning afternoon sunlight slipped into the rooms of Calvary Hospital in the Bronx. Outside, the trees looked like propped-up sticks, gray, crooked and ready for winter. Inside, it was warm and quiet, in anticipation of a bigger chill. Michael Burke lay in his bed, the latest stop in a medical journey that started in September with treatment at another hospital for a cancer that spread from his colon to his lung and brain.

"The doctors think I'm terminal," he said. "I think I'm terminal."

Calvary Hospital bills itself as the country's only specialty hospital for adults in the final stages of advanced cancer. It is not a hospice, since its patients require constant medical attention to stabilize them and ease their pain. Doctors tend to nearly every aspect of a patient's physical and emotional comfort as well as helping families that are emotionally battered by the disease.

Doctors at Calvary, which started almost 100 years ago in a Greenwich Village house, see their work as a counterpoint to those who advocate "a definitive medical response" to terminal illness. In plain English, they offer the dying patient an alternative to assisted suicide. It's not a place that Dr. Jack Kevorkian, who was ordered this week to stand trial on murder charges for his role in a suicide shown on television, has ever visited.

Mr. Burke, 45, a mechanical contractor, understands how frustration and despair drive some people to suicide, even if they have received the best care. But he does not consider that an option, and he is alarmed by Dr. Kevorkian's increasingly brazen attempts to force the issue.

"He seems seriously aggressive about it," Mr. Burke said. "But what constitutes the envelope of what he considers candidates for euthanasia would become bigger and bigger. I think people need to make it difficult for guys like that."

Calvary operates under the auspices of the Roman Catholic Archdiocese of New York, so its opposition to suicide hews to church teaching. Its patients—200 on any given day—represent many faiths. In rare cases, critically ill patients arrive at the hospital asking for a quick end. More common are feelings of depression or emotional suffering, which, if not addressed by doctors, psychiatrists and social workers, could lead to desperate yearnings.

"Depression is more painful than physical pain," said Dr. Michael Brescia, the hospital's medical director. "Emotional suffering is the absence of love. This is a time when people have to say final farewells to their children. There are no more holidays. No future. You're not in this life, you're on the outside looking in. Everybody else has a life and you don't have one. Most people, if they ask for suicide, it's from the emotional aspects of this disease."



Those emotional hardships, doctors said, aren't made any easier by the difficulties patients have in persuading their health maintenance organizations to allow them to seek appropriate care in other hospitals, or at least let them check into Calvary when death is near. Dr. James Cimino, director of Calvary's palliative care institute, said the medical run-around has been exploited by proponents of assisted suicide, who present euthanasia as a dignified response to the indignities of the health care bureaucracy.

"Kevorkian forced us as a society to ask why people want to die prematurely," Dr. Cimino said. "But we should have confronted it before."

He knows that other doctors—good, well-meaning ones—also support euthanasia. But each day he sees patients who resist an early demise. "Maybe it's something about the nature of the person that they have this suffering, yet they don't request suicide," he said. "I don't want to get into the philosophy of that."

But Michael Burke does.

"Kevorkian is assuming there's nothing out there after this," he said. "I assume there is. I think that's where we part company."

He said that as long as he was comfortable—and he was—he had no problem. Suicide, he said, would be unfair to his wife and two children.

"I wouldn't want them to believe Daddy had the option of pushing this button and leaving," he said. "I'm not trying to squeeze every last moment. But if I can live for a week and see my son one more time, I would. As opposed to seeing Kevorkian this afternoon. Not that I think they would let him in the door here."

He gave a small smile and a thumbs-up sign. The gesture was his own definitive response. ■

### *Questions for Analysis*

1. People who support euthanasia, in its active and/or passive forms, believe that the right to die is as integral a part of our human freedoms as the right to live. Based on your reading of the articles, cite reasons that support this way of thinking.
2. People opposed to euthanasia believe that we do not have the right to end a life prematurely, even when someone is in the last stages of a terminal disease or is being kept alive by life-sustaining equipment. Based on your reading of the articles, cite reasons that support this perspective.

3. The two terminally ill men described in these articles, Thomas Youk and Michael Burke, are in very similar medical situations, yet they come to very different conclusions about ending their own lives. Explain why you think that each man came to his particular conclusion.
4. Some people are concerned that legally permitting people to decide that their medical conditions are "hopeless" or "terminal" and that they are thus justified to end their lives establishes an elastic criterion that will inevitably lead to abuse and unnecessary deaths. Identify some of the potential abuses that might occur if society enacts laws legitimizing each of these different forms of euthanasia (as is already beginning to happen) and describe strategies that might be used to avoid these abuses.
5. The patient in the videotape (*Thinking Towards Decisions*) that accompanies this chapter is in a comatose state, being kept alive with a ventilator and feeding tube. Explain how people with differing views on euthanasia would analyze the family's situation and the choices they ought to make. Have you even been involved in a euthanasia situation with a family member or friend? Describe your experience.

Name: \_\_\_\_\_

I am:	Female	Male	
	Masculine	Feminine	Androgynous

My race is: \_\_\_\_\_

My sexual orientation is: \_\_\_\_\_

My spiritual belief is: \_\_\_\_\_

My favorite color is: \_\_\_\_\_

My favorite book & author are: \_\_\_\_\_

My favorite actor & movie are: \_\_\_\_\_

My favorite musician & song are: \_\_\_\_\_

My favorite food & drink are: \_\_\_\_\_

My favorite class is: \_\_\_\_\_

My hobbies include: \_\_\_\_\_

I was born and raised in: \_\_\_\_\_

My current pet is a \_\_\_\_\_ and is named: \_\_\_\_\_

My favorite quote is: \_\_\_\_\_

If I could have one wish it would be: \_\_\_\_\_

If I were lost on a deserted island, I would: \_\_\_\_\_

I currently ride/drive to school a \_\_\_\_\_ and wish it were a:

\_\_\_\_\_

My dream vacation would be: \_\_\_\_\_

\_\_\_\_\_

My dream date would be: \_\_\_\_\_

\_\_\_\_\_

I am a      Day      Night      Afternoon      person.

I am      Athletic      Couch Potato or Other: \_\_\_\_\_

I like      Summer      Fall      Winter      Spring      best of the seasons.

My Zodiac signs include: \_\_\_\_\_

I feel this survey: \_\_\_\_\_

\_\_\_\_\_



**Introductory In-Class Exercise—10 points per student**

Your job is to find someone in the room to fit each category. When you find someone who fits the named item, write that person's first name—her or his real name, spelled correctly—on the line next to the item. You must be able to point that person out if asked. You may use yourself once, and if possible, use every person in the room to complete the assignment. If no one in the room fits a particular description, adapt the description to fit someone who does. Use your collective imagination, but stay somewhat within the category.

Find someone who . . . .

1. Is in his/her first semester at DeVry \_\_\_\_\_
2. Has attended another college/training school \_\_\_\_\_
3. Has served in the military \_\_\_\_\_
4. Has more than two children \_\_\_\_\_
5. Speaks another language besides English \_\_\_\_\_
6. Works two jobs, in addition to attending school \_\_\_\_\_
7. Is the first in her/his family to attend college \_\_\_\_\_
8. Has traveled to another country \_\_\_\_\_
9. Makes a mean batch of chili \_\_\_\_\_
10. Has dyed her/his hair a different color \_\_\_\_\_
11. Has broken a limb \_\_\_\_\_
12. Has already read two chapters of the course text \_\_\_\_\_
13. Has quit smoking \_\_\_\_\_
14. Attends church regularly \_\_\_\_\_
15. Drinks black coffee \_\_\_\_\_



---

## UNCRITICAL INFERENCE TEST

### *Instructions:*

The Uncritical Inference Test is designed to determine your ability to think accurately and carefully. It is important that you follow the directions very carefully.

1. You will read a brief story. Assume that all of the information presented in the story is definitely accurate and true. Read the story carefully. You may refer to the story whenever you wish.
2. You will then hear statements about the story. These statements will be presented one at a time. Answer them as they are read since each statement will only be read twice.
3. After each statement is presented, determine whether the statement is:
  - a. **T:** On the basis of the information presented in the story, the statement is definitely true.
  - b. **F:** On the basis of the information presented in the story, the statement is definitely false.
  - c. **?:** The statement may be true (or false) but, on the basis of the information presented in the story, you cannot be definitely certain. If any part of the statement is doubtful, mark the statement "?".
4. Indicate your answer by circling either "T" or "F" or "?" on the answer sheet.
5. Remember: Answer only on the basis of the information presented in the story. Don't base your answers on what you think might have happened.
6. Turn the page over now and let's begin.





---

## THE STORY

Name \_\_\_\_\_

A businessman had just turned off the lights in the store when a man appeared and demanded money. The owner opened a cash register. The contents of the cash register were scooped up and the man sped away. A member of the police force was notified promptly.

**Circle the correct answer**

1.    T    F    ?
2.    T    F    ?
3.    T    F    ?
4.    T    F    ?
5.    T    F    ?
6.    T    F    ?
7.    T    F    ?
8.    T    F    ?
9.    T    F    ?
10.   T    F    ?
11.   T    F    ?
12.   T    F    ?
13.   T    F    ?
14.   T    F    ?
15.   T    F    ?



**Go to Library Web Page at**  
[www.chi.devry.edu/library](http://www.chi.devry.edu/library) to  
 access databases

**Library Catalog**—On-line  
 catalog that lists books, videos and  
 other material in the DeVry Library  
 System. You can limit your search  
 to the Chicago campus or access  
 all of the DeVry campuses.  
 Search by subject, title, author, or  
 keyword.

To use the catalog:

1. Go to Library Web Page and  
 click on "Search the DeVry  
 Library" icon.
2. Click on "local catalog"
3. Scroll down and click on  
 "limits" button.
4. Select "Chicago" in Location
5. Click "Set Limits" button.
6. Begin search.

**netLibrary**—Over 8,000 books  
 available in electronic form.  
 Browse books for up to 15 minutes  
 or check books out for 24 hrs. after  
 creating a personal account using  
 one of the computers in the  
 Library.

**EbscoHost**—Full text database  
 that provides instant in-depth  
 access to articles in business, the  
 social sciences, humanities,  
 general science, multi-cultural  
 studies and much more.

Authorization: S8989797  
 Password: welcome

**Faulkner FACCTS**—Provides  
 in-depth information on computer  
 systems, software, networking,  
 and telecommunication  
 technologies. Includes industry  
 trends, vendor and product  
 profiles, and technology tutorials.

Authorization: devry  
 Password: research

**FirstSearch**—Select  
 WilsonSelectPlus for full text  
 articles in science, humanities,  
 education and business. Use  
 NetFirst to search for and link to  
 Internet websites. Access  
 materials worldwide through  
 WorldCat.

Authorization: 100-111-541  
 Password: hen6mxvxe

**ProQuest**—Full text of articles  
 from journals, magazines, and  
 newspapers. Choose from seven  
 specialized databases:

- *ABI/INFORM Global* (business  
 information),
- *ProQuest Computing*  
 (database design, software  
 development, LANs, WANs).
- *Telecommunications* (data  
 and voice communications,  
 wireless and broadband  
 technologies, Internet and  
 e-commerce),
- *Applied Science and  
 Technology* (general and  
 environmental science,  
 electronics, engineering,  
 physics, computers,  
 telecommunications),
- *PA Research* (humanities, social  
 sciences, psychology, sciences),
- *ProQuest Newspapers*  
 (includes full text of the *Wall  
 Street Journal*),
- *Career and Technical Education*  
 (career development materials).

Account name: 4jm48nntww  
 Password: welcome

Name: \_\_\_\_\_

FINDING INFORMATION USING ELECTRONIC DATABASES IN THE DEVRY  
LIBRARY

The purpose of this assignment is to have you become familiar with the many and varied information resources offered through the DeVry Library.

1. Pick a topic of interest to you. Write that topic here: \_\_\_\_\_

2. Locate one book or article on that topic from each of the resources listed below.

3. For each of the resources listed below, provide the following information:

**Articles:** author's name, article title, publication name, publication date, pages.

**Books:** author's name, book title, publication place, publication date.

If you cannot find an article or book on your topic, list the search terms, or descriptive words, that you used in trying to locate the information.

EbscoHost

---

---

Faulkner FAACTS

---

---



FirstSearch

---

---

netLibrary

---

---

ProQuest

---

---

(Voyager) DeVry On-Line Catalog

---

---

**COLL 147****Library Assignment #2****100 points****Name:** \_\_\_\_\_ **Section:** \_\_\_\_\_*Thinking Critically About Source Information*

Now that you are familiar with the databases and other resources available to you in the library, I would like you to find an article that centers around critical thinking. Ebsco is probably the best resource to use. Your search team should be "critical thinking AND \_\_\_\_\_"; fill in the blank with an area you hold a particular interest in. Peruse the results you get by reading the article summaries, and pick an article that was written after 1998. Choose an article that interests you, print it out, read the entire article, and then attach it to this assignment after answering carefully and completely the following questions. Your answers should be typed and double-spaced on a separate sheet of paper. Incorporate the question in your answer. Attach the answers to this assignment.

1. Is it clear who wrote the article? What are the author's qualifications for writing on this topic, if any?
2. Does the author list any references, i.e. a bibliography, to support her or his factual information?
3. Is the article free of grammatical, spelling, and other typographical errors?
4. Does the author present a viewpoint on the subject matter?
5. When was the article written? When was it published on the Internet?
6. Discuss briefly (3-5 sentences) the main idea of the article.
7. Evaluate the article. Did you like it? Did you understand it? Did it hold your interest? Did you learn anything? Was it relevant for you? What can we all use as a result of you having read this article?

## CHAPTER

# 2

## THINKING CRITICALLY ABOUT THE FUTURE

### **Working Toward Goals**

How do goals function in my life?

What is the appropriate goal?

What are the steps and strategies?

### **THINKING:**

A purposeful, organized,  
cognitive process that we use  
to make sense of the world

### **Deciding on a Career**

What career should I choose?

What are my interests and abilities?

How do I discover the  
appropriate career?

### **Making Decisions**

What is the decision?

What are the choices?

What are the pros and cons?

What is the best choice?

What is my plan of action?

### **Analyzing Issues**

What is the issue?

What is the evidence?

What are the arguments?

What is the conclusion?

**Thinking can be developed and improved** by becoming aware of, carefully examining, and practicing the thinking process.

THINKING IS THE EXTRAORDINARY PROCESS we use every waking moment to make sense of our world and our lives. Successful thinking enables us to solve the problems we are continually confronted with, to make intelligent decisions, and to achieve the goals that give our lives purpose and fulfillment. It is an activity that is crucial for living in a meaningful way.

This book is designed to help you understand the complex, incredible process of thinking. You might think of this text as a map to guide you in exploring the way your mind operates. This book is also founded on the conviction that you can *improve* your thinking abilities by carefully examining your thinking process and working systematically through challenging activities. Thinking is an active process, and you learn to do it better by becoming aware of and actually using the thought process, not simply by reading about it. By participating in the thinking activities contained in the text and applying these ideas to your own experiences, you will find that your thinking—and language—abilities are becoming sharper and more powerful.

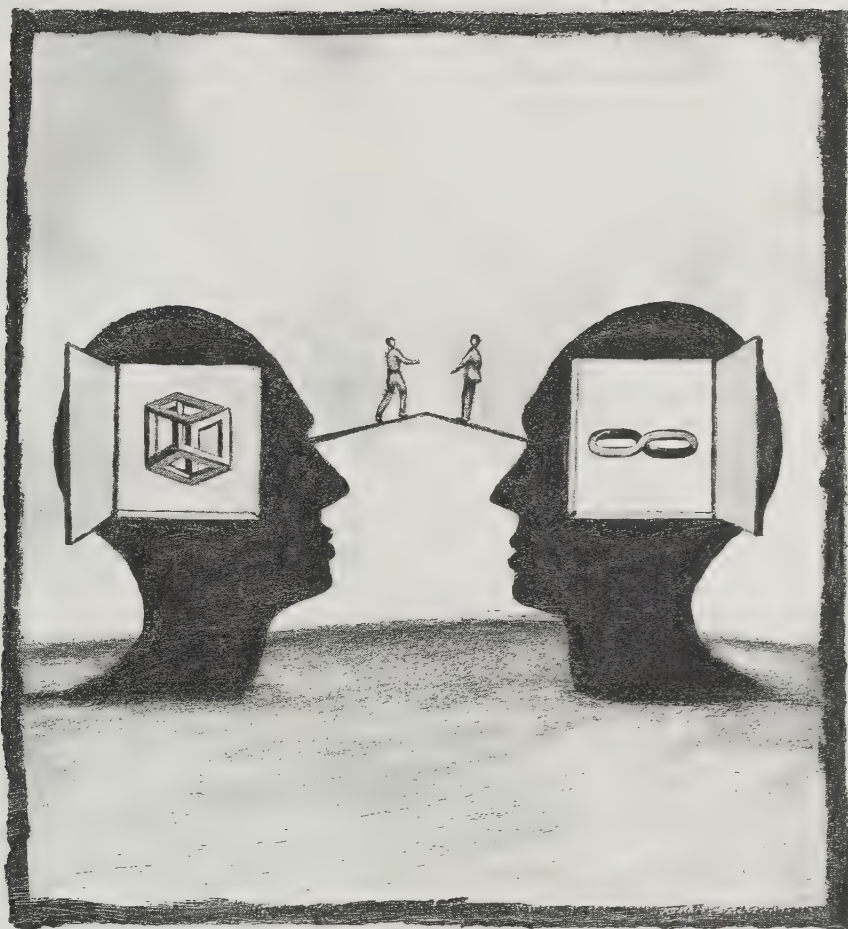
College provides you with a unique opportunity to develop your mind in the fullest sense. Entering college initiates you into a community of people dedicated to learning, and each discipline, or subject area, represents an organized effort to understand some significant dimension of human experience. As you are introduced to various disciplines, you learn new ways to understand the world, and you elevate your consciousness as a result. This book, in conjunction with the other courses in your college experience, will help you become an “educated thinker,” expanding your mind and developing your sensibilities.

Becoming an educated thinker will also help you achieve your career goals. In this rapidly evolving world, it is impossible to predict with precision your exact career (or *careers*) or the knowledge and skills that this career will require. But as an educated thinker you will possess the essential knowledge and abilities that will enable you to adapt to whatever your career situation demands. In addition, becoming an educated thinker will elevate your understanding of the world in which you live and help you develop insight into your “self” and that of others, qualities that are essential to high achievement in most careers.

In this chapter we will examine three areas of our lives in which we use the thinking process to understand our world and make informed decisions:

- Working toward goals
- Making decisions
- Analyzing issues





*Thinking is the extraordinary process we use to solve problems, make intelligent decisions, achieve the goals that give our lives purpose, and connect us to the people in our world.*

---

## LIVING AN "EXAMINED" LIFE

Our world has become a complex and challenging place in which to live. The accelerated pace at which many people live often makes them feel as though they are rushing from deadline to deadline, skating on the surface of life

instead of exploring its deeper meanings. What *is* the purpose of your life? Who are you, and who do you want to become? These are essential questions that form the core of life, and yet the velocity of our lives discourages us from even posing these questions, much less trying to answer them.

Your efforts to become thoughtful and reflective, to explore the nature of your self and the meaning of your life, is made even more difficult by the unthinking world in which we live. Consider all of the foolish opinions, thoughtless decisions, confused communication, destructive behavior, and self-absorbed, thoughtless people that you have to deal with each day. Reflect on the number of times you have scratched your head and wondered, “What was that person thinking?” And how many times have you asked yourself, “What was *I* thinking?” The disturbing truth is that many people don’t think very well; they are not making use of their potential to think clearly and effectively.

Over 2,500 years ago the Greek philosopher Socrates cautioned, “The unexamined life is not worth living,” underscoring the insight that when we don’t make use of our distinctive human capacity to think deeply and act intelligently, our lives have diminished meaning. You have the capacity to create a richly fulfilling life, but you must develop and make full use of your thinking potential to do so. By becoming a true educated thinker, you will have the tools to unlock the mysteries of your self and meet the challenges of the world.

---

## WORKING TOWARD GOALS

“Ah, but a man’s reach should exceed his grasp, / Or what’s a heaven for?”

—Robert Browning

My future career goal is to become a professional photographer, working for National Geographic Magazine and traveling around the world. I originally had different dreams, but gradually drifted away from them and lost interest. Then I enrolled in a photography course and loved it. I couldn’t wait until the weekend was over to attend class on Monday or to begin my next class project—reactions that were really quite unusual for me! Not everyone is certain at my age about what they would like to become, and I think it is important to discover a

career you will enjoy because you are going to spend the rest of your life doing it. I have many doubts, as I think everyone does. Am I good enough? The main thing I fear is rejection, people not liking my work, a possibility that is unavoidable in life. There is so much competition in this world that sometimes when you see someone better at what you do, you can feel inadequate. These problems and obstacles that interfere with my goals will have to be overcome. Rejection will have to be accepted and looked at as a learning experience, and competition will have to be used as an incentive for me to work at my highest level. But through it all, if you don't have any fears, then what do you have? Lacking competition and the possibility of rejection, there is no challenge to life.

As revealed in this student passage, goals play extremely important functions in your life by organizing your thinking and giving your life order and direction. Whether you are preparing food, preparing for an exam, or preparing for a career, goals suggest courses of action and influence your decisions. By performing these functions, goals contribute meaning to your life. They give you something to aim for and lead to a sense of accomplishment when you reach them, like the satisfaction you may have received when you graduated from high school or entered college. It is your thinking abilities that enable you first to identify what your goals are and then to plan how to reach these goals.

Most of your behavior has a purpose or purposes, a goal or goals, that you are trying to reach. You can begin to discover the goals of your actions by asking the question *why* of what you are doing or thinking. For example, answer the following question as specifically as you can:

*Why* did you come to this class today?

This question may have stimulated any number of responses:

- Because I want to pass this class.
- Because I was curious about the topics to be discussed.
- Because I woke up early and couldn't get back to sleep.

Whatever your response, it reveals at least one of your goals in attending class.

Using your response to the question "Why did you come to class today?" as a starting point, try to discover part of your goal patterns by asking a series of *why* questions. After each response, ask *why* again. (For example: Why did

you come to class today? *Because I want to pass this course.* Why do you want to pass this course? *Because . . .* ) Try to give thoughtful and specific answers.

As you may have found in completing the activity, this “child’s game” of repeatedly asking “why?” begins to reveal the network of goals that structure your experience and leads you to progressively more profound questions regarding your basic goals in life, such as “Why do I want to be successful?” or “Why do I want a happy and fulfilling life?” These are complex issues that require thorough and ongoing exploration. A first step in this direction is to examine the way your mind works to achieve your goals, which is the “goal” of this section. If you can understand the way your mind functions when you think effectively, then you can use this knowledge to improve your thinking abilities. This in turn will enable you to deal more effectively with new situations you encounter. To begin this process, think about an important goal you have achieved in your life, and then complete Thinking Activity 2.1. Thinking Activities are designed to stimulate your thinking process and provide the opportunity to express your ideas about important topics. By sharing these ideas with your teacher and other members of the class, you are not only expanding your own thinking, you are also expanding theirs. Each student in the class has a wealth of experiences and insights to offer to the class community.

### THINKING ACTIVITY 2.1 *ANALYZING A GOAL THAT YOU ACHIEVED*



1. Describe an important goal that you recently achieved.
2. Identify the steps you had to take to achieve this goal in the order in which they were taken, and estimate the amount of time each step took.
3. Describe how you felt when you achieved your goal. ◀

### *Achieving Short-term Goals*

By examining your response to Thinking Activity 2.1, you can see that thinking effectively plays a crucial role in helping you to achieve your goals by enabling you to perform two distinct, interrelated activities:

1. Identifying the appropriate goals
2. Devising effective plans and strategies to achieve your goals

You are involved in this goal-seeking process in every aspect of your daily life. Some of the goals you seek to achieve are more immediate (“short-term”)



than others: planning your activities for the day or organizing your activities for an upcoming test.

Although achieving these short-term goals seems like it ought to be a manageable process, the truth is your efforts probably meet with varying degrees of success. You may not always achieve your goals for the day, and you might *occasionally* find yourself inadequately prepared for a test. By improving your mastery of the goal-seeking process, you should be able to improve the quality of every area of your life. Let's explore how to do this.



*Successful thinkers are able to envision a detailed picture of their future goals and construct a specific practical plan to achieve their goals.*

*Identify* five short-term goals you would like to achieve in the next week. Now *rank* these goals in order of importance, ranging from the goals that are most essential for you to achieve to those that are less significant.

Once this process of identifying and ranking your goals is complete, you can then focus on devising effective plans and strategies to achieve your goals. In order to complete this stage of the goal-seeking process, select the goal that you ranked 1 or 2, and then *list all of the steps* in the order in which they need to be taken to achieve your goal successfully. After completing this list, *estimate how much time* each step will take and plan the step in your daily/weekly schedule. For example, if your goal is to prepare for a quiz in biology, your steps might include:

*Goal: Prepare for biology quiz in 2 days*

STEPS TO BE TAKEN	TIME INVOLVED	SCHEDULE
1. Photocopy the notes for the class I missed last week	20 minutes	after next class
2. Review reading assignments and class notes	2 hours	tonight
3. Make a summary review sheet	1 hour	tomorrow night
4. Study the review sheet	30 minutes	right before quiz

### METHOD FOR ACHIEVING SHORT-TERM GOALS

Step 1: Identify the goals.

*Identify* the short-term goals.

*Rank* the goals in order of importance.

*Select* the most important goal(s) to focus on.

Step 2: Devise effective plans to achieve your goals.

*List* all of the steps in the order in which they should be taken.

*Estimate* how much time each step will take.

*Plan* the steps in your daily/weekly schedule.

Although this method may seem a little mechanical the first few times you use it, it will soon become integrated into your thinking processes and will become a natural and automatic approach to achieving the goals in your daily life. Much of our failure to achieve our short-term goals is due to the fact that we skip one or more of the steps in this process. For example, some common thinking errors in seeking our goals include the following:

- We neglect to explicitly identify important goals.
- We concentrate on less important goals first, leaving insufficient time to work on more important goals.
- We don't identify all of the steps required to achieve our goals, or we approach them in the wrong order.
- We underestimate the time each step will take and/or fail to plan the steps in our schedule.

## *Achieving Long-term Goals*

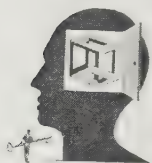
Identifying immediate or “short-term” goals tends to be a fairly simple procedure. Identifying the appropriate “long-term” goals is a much more complex and challenging process: career aims, plans for marriage, paying for children's college, goals for personal development. Think, for example, about the people you know who have full-time jobs. How many of these people get up in the morning excited and looking forward to going to work that day? The unfortunate fact is that many people have not been successful in identifying the most appropriate career goals for themselves, goals that reflect their true interests and talents.

How do you identify the most appropriate long-term goals for yourself? To begin with, you need to develop an in-depth understanding of yourself: your talents, your interests, the things that stimulate you and bring you satisfaction. You also need to discover what your possibilities are, either through research or actual experience. Of course, your goals do not necessarily remain the same throughout your life. It is unlikely that the goals you had as an eight-year-old are the ones you have now. As you grow, change, and mature, it is natural for your goals to change and evolve as well. The key point is that you should keep examining your goals to make sure that they reflect your own thinking and current interests.

Research studies have shown that high-achieving people are able to envision a detailed, three-dimensional picture of their future in which their goals and aspirations are clearly inscribed. In addition, they are able to construct a mental plan that includes the sequence of steps they will have to take, the amount of time each step will involve, and strategies for overcoming the obstacles they are likely to encounter. Such realistic and compelling concepts of the future enable these people to make sacrifices in the present to achieve their long-term goals. Of course, they may modify these goals as circumstances change and they acquire more information, but they retain a well-defined flexible plan that charts their life course.

On the other hand, research also reveals that people who are low achievers tend to live in the present and the past. Their concepts of the future are vague and ill defined: "I want to be happy," or "I want a high-paying job." This unclear concept of the future makes it difficult for them to identify the most appropriate goals for themselves, to devise effective strategies for achieving these goals, and to make the necessary sacrifices in the present that will ensure that the future becomes a reality. For example, imagine that you are faced with the choice of studying for an exam or participating in a social activity. What would you do? If you are focusing mainly on the present rather than the future, then the temptation to go out with your friends may be too strong. On the other hand, if you see this exam as connected to a future that is real and extremely important to you, then you are better equipped to sacrifice a momentary pleasant time for your future happiness.

### THINKING ACTIVITY 2.2 *ANALYZING AN IMPORTANT FUTURE GOAL*



Apply some of the insights we have been examining about working toward goals to a situation in your own life.

1. Describe as specifically as possible an important longer-term goal that you want to achieve in your life. Your goal can be academic, professional, or personal.
2. Explain the reasons that led you to select the goal that you did and why you believe that your goal makes sense.
3. Identify both the major and minor steps you will have to take to achieve your goal. List your steps in the order they need to be taken and indicate how much time you think each step will take. Make your responses as specific and precise as possible.
4. Identify some of the sacrifices that you may have to make in the present in order to achieve your future goal. ◀

### THINKING PASSAGE *THE AUTOBIOGRAPHY OF MALCOLM X*



In the following passage from his autobiography, Malcolm X, a civil rights activist and Black Muslim leader who was assassinated in 1965, describes the steps he took in pursuit of a significant goal while serving time in prison. During his stay at Norfolk Prison Colony, Malcolm X began writing letters to former friends as well as to various government officials. His frustration in trying to express his ideas led him to a course of self-education.



FROM *THE AUTOBIOGRAPHY OF MALCOLM X*  
by Malcolm X with Alex Haley

I became increasingly frustrated at not being able to express what I wanted to convey in letters that I wrote, especially those to Mr. Elijah Muhammad. In the street, I had been the most articulate hustler out there—I had commanded attention when I said something. But now, trying to write simple English, I not only wasn't articulate, I wasn't even functional. How would I sound writing in slang, the way I would *say* it, something such as, "Look, daddy, let me pull your coat about a cat, Elijah Muhammad—"

Many who today hear me somewhere in person, or on television, or those who read something I've said, will think I went to school far beyond the eighth grade. This impression is due entirely to my prison studies.

It had really begun back in the Charlestown Prison, when Bimbi first made me feel envy of his stock of knowledge. Bimbi had always taken charge of any conversation he was in, and I had tried to emulate him. But every book I picked up had few sentences which didn't contain anywhere from one to nearly all of the words that might as well have been in Chinese. When I just skipped those words, of course, I really ended up with little idea of what the book said. So I had come to the Norfolk Prison Colony still going through only book-reading motions. Pretty soon, I would have quit even these motions, unless I had received the motivation that I did.

I saw that the best thing I could do was get hold of a dictionary—to study, to learn some words. I was lucky enough to reason also that I should try to improve my penmanship. It was sad. I couldn't even write in a straight line. It was both ideas together that moved me to request a dictionary along with some tablets and pencils from the Norfolk Prison Colony school.

I spent two days just riffling uncertainly through the dictionary's pages. I'd never realized so many words existed! I didn't know *which* words I needed to learn. Finally, just to start some kind of action, I began copying. In my slow, painstaking, ragged handwriting, I copied into my tablet everything printed on that first page, down to the punctuation marks. I believe it took me a day. Then, aloud, I read back, to myself, everything I'd written on the tablet. Over and over, aloud, to myself, I read my own handwriting.

I woke up the next morning, thinking about those words—immensely proud to realize that not only had I written so much at one time, but I'd written words that I never knew were in the world. Moreover, with a little

effort, I also could remember what many of these words meant. I reviewed the words whose meanings I didn't remember. Funny thing, from the dictionary's first page right now, that "aardvark" springs to my mind. The dictionary had a picture of it, a long-tailed, long-eared, burrowing African mammal, which lives off termites caught by sticking out its tongue as an anteater does for ants.

I was so fascinated that I went on—I copied the dictionary's next page. And the same experience came when I studied that. With every succeeding page, I also learned of people and places and events from history. Actually the dictionary is like a miniature encyclopedia. Finally the dictionary's A section had filled a whole tablet—and I went on into the B's. That was the way I started copying what eventually became the entire dictionary. It went a lot faster after so much practice helped me to pick up handwriting speed. Between what I wrote in my tablet, and writing letters, during the rest of my time in prison I would guess I wrote a million words.

I suppose it was inevitable that as my word-base broadened, I could for the first time pick up a book and read and now begin to understand what the book was saying. Anyone who has read a great deal can imagine the new world that opened. Let me tell you something: from then until I left that prison, in every free moment I had, if I was not reading in the library, I was reading on my bunk. You couldn't have gotten me out of books with a wedge. Between Mr. Muhammad's teachings, my correspondence, my visitors—usually Ella and Reginald—and my reading of books, months passed without my even thinking about being imprisoned. In fact, up to then, I never had been so truly free in my life. ■

### *Questions for Analysis*

In describing how he worked toward the goals of becoming literate and knowledgeable, Malcolm X touches on a variety of important issues related to developing thinking and language abilities. We can analyze some of the issues raised by answering the following questions:

1. Malcolm X states that, although he was an articulate "street hustler," this ability was of little help in expressing his ideas in writing. Explain the differences between expressing your ideas orally and in writing, including the advantages and disadvantages of each form of language expression.
2. Malcolm X envied one of the other inmates, Bimbi, because his stock of knowledge enabled him to take charge of any conversation he was in. Explain why knowledge—and our ability to use it—leads to power in our

dealings with others. Describe a situation from your own experience in which having expert knowledge about a subject enabled you to influence the thinking of other people.

3. Malcolm X states about pursuing his studies in prison that “up to then, I never had been so truly free in my life.” Explain what you think he means by this statement. Describe a time in your life that you felt “truly free.” ◀

---

## MAKING DECISIONS

In order to reach our goals, we have to learn to make the best decisions for ourselves or our community. Although we all make decisions, we don’t always make the most *informed* or *intelligent* decisions possible. In fact, most of us regularly have the experience of mentally kicking ourselves because we made a poor decision. For example, think about a decision you made that you would make differently if you had an opportunity to do it over again.

Many of our poor decisions involve relatively minor issues—for example, selecting an unappealing dish in a restaurant, agreeing to go out on a blind date, taking a course that does not meet our expectations. Although these decisions may result in unpleasant consequences, the discomfort is neither life-threatening nor long lasting (although a disappointing course may *seem* to last forever!). However, there are many more significant decisions in our lives in which poor choices can result in considerably more damaging and far-reaching consequences. For example, one reason that the current divorce rate in the United States stands at 50 percent is the poor decisions people make before or after the vows “till death do us part.” Similarly, the fact that many employed adults wake up in the morning unhappy about going to their jobs, anxiously waiting for the end of the day and the conclusion of the week (TGIF!) so they are free to do what they *really* want to do, suggests that somewhere along the line they made poor career decisions, or they felt trapped by circumstances they couldn’t control. Our jobs should be much more than a way to earn a paycheck—they should be vehicles for using our professional skills, opportunities for expressing our creative talents, stimulants to our personal growth and intellectual development, and experiences that provide us with feelings of fulfillment and self-esteem. In the final analysis, our careers are central elements of our lives and important dimensions of our life-portraits. Our career decision is one that we better try to get right!

An important part of becoming an educated thinker is learning to make effective decisions. Let’s explore the process of making effective decisions and

then apply your knowledge to the challenge of deciding on the most appropriate career for yourself.

### THINKING ACTIVITY 2.3 *ANALYZING A PREVIOUS DECISION*



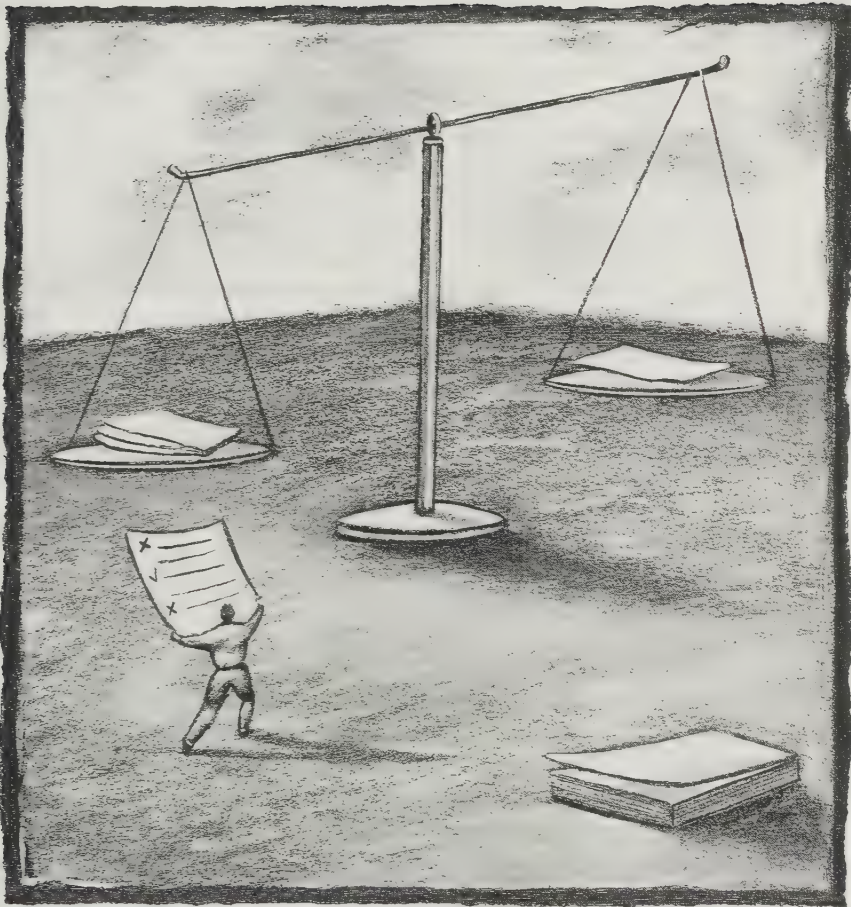
1. Think back on an important decision that you made that turned out well and describe the experience as specifically as possible.
2. Reconstruct the reasoning process that you used to make your decision. Did you:
  - Clearly define the decision to be made and the related issues?
  - Consider various choices and anticipate the consequences of these various choices?
  - Gather additional information to help in your analysis?
  - Evaluate the various pros and cons of different courses of action?
  - Use a chart or diagram to aid in your deliberations?
  - Create a specific plan of action to implement your ideas?
  - Periodically review your decision to make necessary adjustments? ◀

### *An Organized Approach to Making Decisions*

As you reflected on the successful decision you were writing about in Thinking Activity 2.3, you probably noticed your mind working in a more or less systematic way as you thought your way through the decision situation. Of course, we often make important decisions with less thoughtful analysis by acting impulsively or relying on our “intuition.” Sometimes these decisions work out well, but often they don’t, and we are forced to live with the consequences of these mistaken choices. People who approach decision situations thoughtfully and analytically tend to be more successful decision-makers than people who don’t. Naturally, there are no guarantees that a careful analysis will lead to a successful result—there are often too many unknown elements and factors beyond our control. But we can certainly improve our success rate as well as our speed by becoming more knowledgeable about the decision-making process. Expert decision-makers can typically make quick, accurate decisions based on intuitions that are informed, not merely impulsive. However, as with most complex abilities in life, we need to learn to “walk” before we can “run,” so let’s explore a versatile and effective approach for making decisions.

The decision-making approach we will be using consists of five steps. As you gradually master these steps, they will become integrated into your way of thinking, and you will be able to apply them in a natural and flexible way.





*People who approach decision situations thoughtfully and analytically tend to be more successful decision-makers than people who don't.*

**Step 1: Define the Decision Clearly.** This seems like an obvious step, but a lot of decision-making goes wrong at the starting point. For example, imagine that you decide that you want to have a “more active social life.” The problem with this characterization of your decision is it defines the situation too generally and therefore doesn’t give any clear direction for your analysis. Do you want to develop an intimate, romantic relationship? Do you want to cultivate more close friendships? Do you want to engage in more social activities? Do

you want to meet new people? In short, there are many ways to define more clearly the decision to have a “more active social life.” The more specific your definition of the decision to be made, the clearer will be your analysis and the greater the likelihood of success.

*Strategy: Write a one-page analysis that articulates your decision-making situation as clearly and specifically as possible.*

**Step 2: Consider All the Possible Choices.** Successful decision-makers explore all of the possible choices in their situation, not simply the obvious ones. In fact, the less obvious choices often turn out to be the most effective ones. For example, a student in a recent class of mine couldn’t decide whether he should major in accounting or business management. In discussing his situation with other members of the class, he revealed that his real interest was in the area of graphic design and illustration. Although he was very talented, he considered this area to be only a hobby, not a possible career choice. Class members pointed out to him that this might turn out to be his best career choice, but he needed first to *see* it as a possibility.

*Strategy: List as many possible choices for your situation as you can, both obvious and not obvious. Ask other people for additional suggestions, and don’t censor or prejudge any ideas.*

**Step 3: Gather All Relevant Information and Evaluate the Pros and Cons of Each Possible Choice.** In many cases you may lack sufficient information to make an informed choice regarding a challenging, complex decision. Unfortunately, this doesn’t prevent people from plunging ahead anyway, making a decision that is often more a gamble than an informed choice. Instead of this questionable approach, it makes a lot more sense to seek out the information you need in order to determine which of the choices you identified has the best chance for success. For example, in the case of the student mentioned in Step 2, there is important information he would need to secure in order to determine whether he should consider a career in graphic design and illustration, including asking: What are the specific careers within this general field? What sort of academic preparation and experience is required for the various careers? What are the prospects for employment in these areas, and how well do they pay?

*Strategy: For each possible choice that you identified, create questions regarding information you need to find out, and then locate that information.*

In addition to locating all relevant information, each of the possible choices you identified has certain advantages and disadvantages, and it is essential that

you analyze these pros and cons in an organized fashion. For example, in the case of the student described earlier, the choice of pursuing a career in accounting may have advantages like ready employment opportunities, the flexibility of working in many different situations and geographical locations, moderate-to-high income expectations, and job security. On the other hand, disadvantages might include the fact that accounting may not reflect a deep and abiding interest of the student, he might lose interest over time, or the career might not result in the personal challenge and fulfillment that he seeks.

*Strategy: Using a format similar to that outlined in the following worksheet, analyze the pros and cons of each of your possible choices.*

*Define the decision:*

---

<i>Possible choices</i>	<i>Information needed</i>	<i>Pros</i>	<i>Cons</i>
1. _____	_____	_____	_____
2. _____	_____	_____	_____
(Etc.)			

**Step 4: Select the Choice That Seems to Best Meet the Needs of the Situation.** The first four steps of this approach are designed to help you *analyze* your decision situation: to clearly define the decision, generate possible choices, gather relevant information, and evaluate the pros and cons of the choices you identified. In the final step, you must attempt to *synthesize* all that you have learned, weaving together all of the various threads into a conclusion that you believe to be your “best” choice. How do you do this? There is no one simple way to identify your “best” choice, but there are some useful strategies for guiding your deliberations.

*Strategy: Identify and prioritize the goal(s) of your decision situation and determine which of your choices best meets these goals.* This process will probably involve reviewing and perhaps refining your definition of the decision situation. For example, in the case of the student that we have been considering, some goals might include choosing a career that will

- (a) provide financial security
- (b) provide personal fulfillment

- (c) make use of special talents
- (d) offer plentiful opportunities and job security

Once identified, the goals can be ranked in order of their priority, which will then suggest what the “best” choice will be. For example, if the student ranks goals (a) and (d) at the top of the list, then a choice of accounting or business administration might make sense. On the other hand, if the student ranks goals (b) and (c) at the top, then pursuing a career in graphic design and illustration might be the best selection.

*Strategy: Anticipate the consequences of each choice by “preliving” the choices.* Another helpful strategy for deciding on the best choice is to project yourself into the future, imagining as realistically as you can the consequences of each possible choice. As with previous strategies, this process is aided by writing your thoughts down and discussing them with others.

**Step 5: Implement a Plan of Action and Then Monitor the Results, Making Necessary Adjustments.** Once you have selected what you consider your best choice, you need to develop and implement a specific, concrete plan of action. As was noted in the section on short-term goals, the more specific and concrete your plan of action, the greater the likelihood of success. For example, if the student in the case we have been considering decides to pursue a career in graphic design and illustration, his plan should include reviewing the major that best meets his needs, discussing his situation with students and faculty in that department, planning the courses he will be taking, and perhaps speaking to people in the field.

*Strategy: Create a schedule that details the steps you will be taking to implement your decision and a time line for taking these steps.*

Naturally, your plan is merely a starting point for implementing your decision. As you actually begin taking the steps in your plan, you will likely discover that changes and adjustments need to be made. In some cases, you may find that, based on new information, the choice you selected appears to be the wrong one. For example, as the student we have been discussing takes courses in graphic design and illustration, he may find that his interest in the field is not as serious as he thought and that although he likes this area as a hobby, he does not want it to be his life work. In this case, he should return to considering his other choices and perhaps adding additional choices that he did not consider before.

*Strategy: After implementing your choice, evaluate its success by identifying what’s working and what isn’t, and make the necessary adjustments to improve the situation.*



### METHOD FOR MAKING DECISIONS

Step 1: Define the decision clearly.

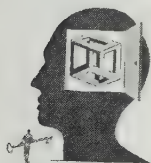
Step 2: Consider all the possible choices.

Step 3: Gather all relevant information and evaluate the pros and cons of each possible choice.

Step 4: Select the choice that seems to best meet the needs of the situation.

Step 5: Implement a plan of action and then monitor the results, making necessary adjustments.

### THINKING ACTIVITY 2.4 *ANALYZING A FUTURE DECISION*



1. Describe an important decision in your academic or personal life that you will have to make in the near future.
2. Using the five-step decision-making approach we just described, analyze your decision and conclude with your “best” choice.
3. Share your analysis with other members of the class and listen carefully to the feedback they give you. ◀

---

## THINKING CRITICALLY ABOUT MORAL JUDGMENTS

Many of the judgments with which you are involved are moral judgments, decisions regarding “right” and “wrong” behavior in your relationships with others. These judgments are often based on criteria that you have absorbed from your parents and the surrounding culture. If you have critically examined the ethical beliefs with which you were raised, however, you may have found that some of your views diverge from the views of those around you. Of course, critical evaluation may also strengthen your endorsement of the beliefs with which you were raised by deepening your understanding of the reasons on which they are based.

These influences create a “moral compass” that each of us possesses to guide our decisions in moral situations. One research study that analyzed the

moral compasses young people use to guide their decision-making in moral situations asked: “If you were unsure of what was right or wrong in a particular situation, how would you decide what to do?” Describe how *you* would respond to this question.

According to the researcher, here’s how the students interviewed responded:

- 23 percent: I would do what is best for everyone involved.
- 20 percent: I would follow the advice of an authority, such as a parent or teacher.
- 18 percent: I would do whatever made me happy.
- 16 percent: I would do what God or the Scriptures say is right.
- 10 percent: I would do whatever would improve my own situation.
- 9 percent: I do not know what I would do.
- 3 percent: I would follow my conscience.

Each of these guiding principles represents a different moral theory that describes the way people reason and make decisions about moral issues. However, moral values do not only *describe* the way people behave; they also suggest that this is the way people *ought to* behave. For example, if I say, “Abusing children is morally wrong,” I am not simply describing what *I* believe; I am also suggesting that abusing children is morally wrong for *everyone*. Let’s briefly examine the moral theories represented by each of the responses just listed.

*I would follow my conscience.* We could describe this as a *psychological* theory of morality because it holds that we should determine right and wrong based on our psychological moral sense. Our “conscience” is that part of our mind formed by internalizing the moral values we were raised with, generally from our parents, but from other authority figures and peers as well. If that moral upbringing has been intelligent, empathetic, and fair-minded, then our conscience can serve as a fairly sound moral compass of determining right and wrong. The problem with “following our conscience” occurs when the moral values we have internalized are *not* intelligent, empathetic, or fair-minded. For example, if we were raised in an environment that encouraged racist beliefs or condoned child abuse, then our “conscience” might “tell us” that these are morally acceptable behaviors.

*I do not know what I would do.* This statement expresses a *moral agnostic* theory of morality that holds there is no way to determine clearly what is “right” or “wrong” in moral situations. This view is a form of *relativism* because it suggests that there is no universal common standard to determine how we

ought to behave toward each other. Although there are often times when we are confused about the right course of action in complex moral situations, the *moral agnostic* theory is problematic because it does not permit us to evaluate the conduct of others. For example, if someone robs you and beats you up, you have no basis on which to say, "That was a morally wrong thing for that person to do." Instead, you have to tolerate such conduct because there is no ultimate "right" or "wrong."

*I would do whatever would improve my own situation.* We could describe this viewpoint as a *pragmatic* theory of morality because the "right" action is based on what works well for advancing the speaker's interests while the "wrong" action is determined by what works against the speaker's interests. For example, if you are trying to decide whether you should do volunteer work at a local drug treatment center, you might conclude that this is the "right" thing to do because it will help you in your training as a psychologist and will look good on your resume. The problem with this sort of moral reasoning is that you could also use it to justify cheating on an upcoming exam (if you were assured of not getting caught!) or hurting someone's reputation so that you could get ahead. At its heart, the "pragmatic theory" of morality can be used to justify *any* actions that serve the individual interests of anyone, ranging from Mother Teresa to Adolf Hitler!

*I would do whatever God or the Scriptures say is right.* This statement expresses a *theist* theory of morality that holds that "right" and "wrong" are determined by a supernatural Supreme Being ("God"). We determine what this Supreme Being wants us to do through divinely inspired writings (Scriptures or Holy Books) or through divinely inspired messengers (priests, ministers, prophets, the Pope). As an "absolutist" moral theory, this view holds that there are absolute moral principles that all humans should follow, determined by the Supreme Being that created them. The strength of this moral theory lies in the fact that many religions embody values that are intelligent, empathetic, and fair-minded, and the devotion of these religions' followers encourages them to act in these morally upright ways. The potential problem with this moral perspective is that all religions don't agree regarding moral values, and so we are left to determine which religion is the "right" one on which to base our moral views. In addition, there have been many historical instances in which religion has been used to justify actions that by any standard are cruel and inhuman, including torture, murder, and human sacrifice. There is always a danger when we surrender our critical thinking faculties completely to another authority, as is shown by the actions of those who joined cults led by figures like David

Koresh, the Reverend Jim Jones, and Herff Applewhite (the Hale-Bopp comet suicide cult leader). In these instances, people who claimed to be divinely inspired messengers of God brought bizarre sexual practices, pain, and ultimately death to the followers who relied on them.

*I would do whatever made me happy.* This statement reflects a slightly more refined version of the *hedonist* moral theory, which advises people to do whatever brings them pleasure. Although this is certainly an understandable goal in life—almost everybody wants to be “happy,” whatever *that* means—there are significant problems when we apply this way of thinking to the moral realm and our relationships with other people. For example, suppose you are contemplating an action that will make you very happy—stealing a new BMW convertible, for example—but will make someone else very *unhappy*—the owner of the car, for example. According to this moral theory, the “right” thing to do would be to steal the car, assuming that you didn’t experience feelings of guilt or risk getting caught, feelings that would interfere with your happiness. In other words, the trouble with doing “whatever makes you happy” is the same difficulty we saw with “doing whatever improves your situation.” Neither moral theory takes into account the interests or rights of other people, and so when your interests conflict with someone else’s, your interests always prevail. If everyone thought this way, then our world would be an even more dangerous and unpleasant place to live!

*I would follow the advice of an authority, such as a parent or teacher.* This *authoritarian* moral theory is analogous to the *theist* moral theory (“I would do whatever God or the Scriptures say is right”) in the sense that according to both theories, there are clear values of “right” and “wrong,” and we should ask authorities to find out what these are. The difference is, of course, that in the *theist* view this authority is a Supreme Being, while the *authoritarian* view holds that the authority is human. And the same difficulties that the *theist* view brings carry over to the *authoritarian* perspective, for although the values of parents and teachers often reflect wisdom and insight, many times they do not. How can we tell the difference between the appropriate and inappropriate values of these authorities? And what do we do when these authorities disagree with each other, as they often do? If we have deferred our critical judgment to the authorities, then we are at their mercy. On the other hand, if we are prepared to evaluate critically the values of authorities, accepting what makes sense and discarding what doesn’t, then we need another source for our moral values.

*I would do what is best for everyone involved.* This response expresses an *altruistic* moral theory, a view in which the interests of other people are held



to be as important as our own when we are trying to decide what to do. For example, if you are trapped with other students in a burning theater, the morally “right” course of action is to work for everyone’s safe escape, not simply for your own. This moral perspective is an important part of many of the prominent world religions, and it is embodied in the Golden Rule: “Do unto others as you would have them do unto you.” In other words, deciding on the morally right thing to do requires that we mentally and emotionally place ourselves in the positions of other people who might be affected by our action and then make our decision based on what will be best for their interests *as well as* for our interests. By adopting this moral view, we eliminate many of the difficulties of other moral theories. For example, we will be reluctant to act in ways that harm other people, because if we were in their position, we wouldn’t want to be harmed that way ourselves. However, it is often difficult to determine what’s “best” for everyone involved. Even more problematic is the question, What action should we take when the “best interests” of people *conflict* with one another?—a very common moral dilemma.

### THINKING ACTIVITY 2.5 ANALYZING MORAL DILEMMAS



The following are several dilemmas that ask you to respond with decisions based on moral reasoning. After thinking carefully about each situation, do the following:

- Describe the decision that you would make in this situation and explain the reasons why.
- Identify the moral value(s) or principle(s) on which you based your decision.
- At the conclusion of the activity, compare the moral values that you used. Did you find that you consistently used the same values to make decisions, or did you use different values? If you used different ones, how did the various values relate to each other?
- Based on this analysis, describe your general conclusions about your own “moral compass.”

1. **The Lifeboat:** You are the captain, and your ship struck an iceberg and sank. There are thirty survivors, but they are crowded into a lifeboat designed to hold just seven. With the weather stormy and getting worse, it is obvious that many of the passengers will have to be thrown out of the lifeboat, or it will sink and everyone will drown. Will you have people thrown over the side? If so, on what basis will you decide who will go? Age? Health? Strength? Gender? Size?

2. **The Whistle-Blower:** You are employed by a large corporation that manufactures baby formula. You suspect that a flaw in the manufacturing process has resulted in contamination of the formula in a small number of cases. This contamination can result in serious illness, even death. You have been told by your supervisor that “everything is under control” and warned that if you “blow the whistle” by going public, you will be putting the entire company in jeopardy from multimillion-dollar lawsuits. You will naturally be fired and blackballed in the industry. As the sole provider in your household, your family depends on you.
3. **The Mad Bomber:** You are a police lieutenant heading up an investigation of a series of bombings that have resulted in extensive damage, injuries, and deaths. Your big break comes when you capture the person whom you are certain is the “mad bomber.” However, he tauntingly tells you that he has placed a number of devices in public locations that will explode at the cost of many innocent lives and injuries. You believe that your only chance of extracting the location of these bombs is to torture this person until he tells. If you decide to do this, both your career and the legal case against the bomber will be placed in jeopardy. What do you do?
4. **The Patient:** As a clinical psychologist, you are committed to protecting the privacy of your patients. One afternoon a patient tells you that her husband, who has been abusing her physically and mentally for years, has threatened to kill her, and she believes he would. You try to convince her to leave him, but she tells you that she has decided to kill *him*. She is certain that he would find her wherever she went and feels that she will be safe only when he is dead. What do you do?
5. **The Friend:** As the director of your department, you are in charge of filling an important vacancy. Many people have applied, including your best friend, who has been out of work for over a year and needs a job desperately. Although your friend would likely perform satisfactorily, there are several more experienced and talented candidates who would undoubtedly perform better. You have always prided yourself on hiring the best people, and you have earned a reputation as someone with high standards who will not compromise your striving for excellence. Whom do you hire? ◀

As you think your way through these moral dilemmas, you will probably find yourself appealing to the basic moral principles that you typically use to guide your actions. Of course, what makes these examples moral *dilemmas* is the fact that they involve a *conflict* of traditional moral principles.

1. *The Lifeboat* involves a conflict between these moral beliefs:

- It is wrong to take any innocent life.
- It is right to save *some* lives rather than threaten *all* the lives on board.

2. *The Whistle-Blower* involves a conflict between these moral beliefs:

- It is wrong to knowingly jeopardize the health of children.
- It is right to protect the welfare of your family and your career.

3. *The Mad Bomber* involves a conflict between these moral beliefs:

- It is wrong to harm a human being.
- It is right to save the lives of many innocent people.

4. *The Patient* involves a conflict between these moral beliefs:

- It is wrong to violate the confidentiality of a professional relationship.
- It is right to prevent someone from committing murder.

5. *The Friend* involves a conflict between these moral beliefs:

- It is wrong to hire someone who is not the best qualified candidate for the job.
- It is right to try to help and support your friends.

What makes each of these examples *dilemmas* is that both of the moral principles to which you are appealing seem ethically sound and appropriate; the problem is that they *contradict* each other. What should you do when this happens? How do you decide which principle is *more* "right"? There is no simple answer to this question, just as there is no easy answer to the question "What do you do when experts disagree?" In both cases, you need to *think critically* in order to arrive at intelligent and informed conclusions.

Naturally, the moral dilemmas just described are specifically designed to provoke intense *angst* and vigorous debate, but the situations nevertheless contain elements also found in everyday moral deliberations. For example, though you are unlikely to find yourself in a similar *Lifeboat* situation, you might be faced with the decision of which employees to fire in order to keep your company afloat. And though the *Whistle-Blower* example may seem extreme, employees working for companies that manufacture baby formula, contraceptives like the

Dalkon Shield, and tobacco products have often found themselves in precisely this moral dilemma. You yourself may have been in a job situation where telling the truth or objecting to an unethical practice would jeopardize your position or opportunity for advancement. Many therapists, clergy, lawyers, and doctors wrestle daily with issues of confidentiality analogous to the one described in *The Patient*. And we all have to deal with the question of under what circumstances it is morally appropriate to break our promises to avoid a greater evil or achieve a greater good. It requires little imagination to identify the issues of *The Friend*. There are countless instances in which we are forced to balance our feelings of personal obligation with our objective or professional analysis.

In addition to these kinds of ethical situations, you will also undoubtedly confront other types of moral dilemmas that are at least as problematic. It is likely that at some point in your life, you will have to make a “right to die” decision regarding a loved one nearing the end of life. You might also find yourself in a situation in which you are torn between ending a difficult marriage or remaining as a full-time parent of young children. Or you might be tempted to take advantage of an investment opportunity which, while not completely illegal, is clearly unethical. Dealing with complicated, ambiguous moral challenges is an inescapable part of the human condition. Since these situations can’t be avoided, you need to develop the insight and conceptual tools to deal with them effectively.

---

## THE THINKER’S GUIDE TO MORAL DECISION-MAKING

After wrestling with the moral dilemmas presented in the previous section, you might be wondering exactly how we *do* develop a clear sense of “right” and “wrong” to guide us through complex moral situations. The answer is found by applying to moral issues the same critical thinking abilities we have been developing in the activities presented throughout this book to create **The Thinker’s Guide to Moral Decision-Making**. Consider this guide a moral blueprint for constructing your own personal moral code. Using the concepts and principles provided by this guide, you can create a moral philosophy to analyze successfully virtually any moral situation and to make informed decisions that you can justify with confidence.

*Make Morality a Priority* To live a life which achieves your moral potential, you must work to *become aware* of the moral issues that you face and strive to



make choices that are grounded in thoughtful reflection and supported by persuasive reasoning. By living a morally enlightened life, you are defining yourself as a person of substance, a person with a vision that informs the quality of your relationships with others.

**Strategy:** *During the next week, identify the moral issues that you encounter in your daily life that involve other people—choices related to right and wrong, good and evil, matters just and unjust. Select several of these moral choices and think about the approach that you used in making each decision: What was the issue? What choices could you have made? Why did you make the choice that you did? If you had it to do over again, would you make the same choice? Why or why not?*

**Adopt the “Ethic of Justice”** A critical thinking approach to ethics is founded on the principle of *justice or impartiality*: it is our moral obligation to treat everyone equally, with the same degree of consideration and respect, unless there is some persuasive reason not to do so. This is the basic principle of the “Ethic of Justice.” For example, differences among people that are based on race, religion, gender, or sexual orientation pose no threat to society as a whole. Therefore, people whose traits, beliefs, or practices differ from those of the majority deserve to be treated with the same respect to which everyone is entitled. The Ethic of Justice emphasizes the *intentions* of or *motivation* for an action. It expresses the conviction that you affirm when, confronted with a moral decision, you respond: “I have to do my duty to act justly. Regardless of the consequences, it’s important for me to do what’s right.” It is both illogical and immoral to discriminate against other people.

**Strategy:** *Think about your own biases toward others and begin working to treat these people with the respect they are due.*

**Adopt the “Ethic of Care”** The “Ethic of Care” expresses a moral responsibility to others which is based on your ability to empathize—to put yourself in other people’s situations and view the world from their perspectives. This ability to empathize enables you to feel compassion and sympathy toward others and serves as the foundation of all your healthy relationships. According to an empathetic point of view, achieving happiness and fulfillment in life does not mean pursuing your own narrow desires; instead, it involves pursuing your aspirations in a context of genuine understanding of other people. When you actively work to transcend your own perspective and think within other points of view, particularly those with which you disagree, you are gaining a deeper and richer understanding of others. You need to listen carefully to people who

disagree with you and to try to appreciate what thinking has brought them to their conclusions. Perspective-taking is the cornerstone of many of the world's ethical systems, such as the Golden Rule: "*Do unto others as you would have them do unto you.*" In other words, strive to place yourself in the position of the object of your moral judgment and see how that perspective affects your evaluation.

**Strategy:** *Increase your ability to empathize by making a special effort to transcend your own perspective and to place yourself in other people's "shoes." In your dealings with others, use your imagination to experience what you believe they are thinking and feeling, and observe whether this viewpoint influences your attitudes and actions toward them.*

**Universalize Your Moral Choices** A very effective strategy to employ during your moral deliberations is to ask yourself if you would be willing for everyone in situations similar to your own to make the same choice that you are making—in other words, to "universalize" your choice. This moral principle was best articulated by the German philosopher Immanuel Kant in the "Categorical Imperative" that he believed every virtuous person should obey: "*Act only according to that maxim by which you can at the same time will that it should become a universal law.*" Should you spread unflattering gossip about an unpopular acquaintance or coworker because you think the person "deserves" it? By applying this principle, you would determine that you should only do so if you believe that all people in all situations should spread unflattering gossip. Most people would be reluctant to sign on to this sort of universal rule.

But why should you go along with the Categorical Imperative in the first place? Because, being first and foremost a rational creature, you are necessarily committed to a belief in *logical consistency*. How could you defend doing something that you would condemn other people for doing? What qualities make *you* so unique, so superior to everyone else, that you are not subject to the same rules and requirements by which others are bound? Objectively speaking, there are no such special qualities. Your intrinsic value is no greater and no less than that of any other rational person. Reason dictates that everyone's interests must be treated in the same way, without special consideration. We should all be willing to make every personal choice a universal law.

**Strategy:** *As you deliberate the various moral choices in your life, both small ("Should I cut ahead in line?") and large ("Should I pursue my own self-interest at the risk of hurting someone else?"), make a conscious effort to universalize your anticipated actions. Would you be willing to have everyone take this same action in similar circumstances. If not, evaluate whether the action is truly morally justified and consistent with the other moral values you hold.*

***Treat People as Ends, Not Means*** Kant also formulated a second version of the Categorical Imperative: “Act so that you treat humanity, whether in your own person or in that of another, always as an end and never as a means only.” Since all people possess the same *intrinsic value*, a value that is defined by the ability to understand their options and to make free choices, we should always act in a way that respects their inherent dignity as rational agents. Imagine, for example, that you want to sell something. Is it all right to manipulate people’s feelings so that they will buy your product? Or suppose that your child or friend is planning to do something that you don’t think is in her best interests. Is it permissible to manipulate her thinking indirectly so that she will make a different choice? According to Kant, both of these actions are morally wrong because you are not treating the people involved as “ends”—that is, as rational agents who are entitled to make their own choices. Instead, you are treating them as “means” to an end, even though you may believe that your manipulation is in their best interests. The morally correct thing to do is to tell them exactly what you are thinking and then give them the opportunity to reason through the situations and make their own choices. The idea of *always* treating people as “ends” and *never* as “means” to achieving our own ends may seem extreme. Perhaps we should begin by taking Kant’s recommendation more seriously than we normally would. By respecting someone else’s right—even a child’s—to make free choices, we are bringing out the best in the person as we simultaneously enhance our own moral stature.

**Strategy:** *Think about some recent instances in which you attempted to influence someone’s thoughts, feelings, or behavior. Did you make a clear case for your recommendation, respecting the person’s right to make a free choice? Or did you try to manipulate him or her by using techniques designed to influence the person without his or her knowledge or to coerce the person against his or her wishes? If you discover examples of such manipulation, try to imagine how things would have turned out if you had taken a more forthright approach.*

***Accept Responsibility for Your Moral Choices*** From a critical thinking perspective, morality only makes sense if we assume that people are able to make free choices for which they are responsible. When people choose courses of action that we consider to be “right,” we judge them as morally “good.” On the other hand, when they choose courses of action that we consider to be “wrong,” we condemn them as morally “evil.” It is impossible to achieve genuine moral stature without admitting responsibility for the choices that you make. If you are to create yourself as a person of moral integrity, you must have the courage to acknowledge your own moral failures as well as the humility to accept your

moral successes. And in order to exercise your freedom fully, you need to have insight into your options, your motivations, and the consequences of your actions. This is the uniquely human gift: we have the intelligence, the imagination, and the reflective insight to consider a range of options and to make choices. Sometimes we choose wisely; sometimes we choose poorly—but in all instances we are responsible for the choices that we ourselves make.

**Strategy:** *Strengthen your moral integrity by actively seeking to acknowledge your moral failings and then by committing yourself to improve. Self-honesty will build your inner strength and moral fiber, and you will find that moral integrity of this sort is both rewarding and habit forming.*

**Seek to Promote Human Happiness** Promoting human happiness—and its corollary, diminishing human suffering—have been mainstays of many ethical systems through the ages. Most people are perfectly willing to pursue their own happiness. However, you don't receive moral accolades solely for pursuing your own interests. Moral recognition is typically earned by devoting your time and resources to enhancing the happiness of others, sometimes at the expense of your own interests. This moral value is founded on the principle of perspective-taking, which we explored earlier. Identifying with another's predicament can generate the desire to assist the person whose situation could just as easily have been yours ("There but for the grace of God . . ."). This, then, is the well-spring of charitable acts toward others.

But this moral concept is also relevant in your ordinary dealings with people. All things being equal, it makes sense to promote the happiness of others through your words and actions. Your being friendly, generous, supportive, understanding, sympathetic, or helpful—exhibiting these and other similar traits can enhance the quality of others' lives, usually at a minimal cost to yourself. Happiness breeds happiness in the same way that aggression escalates aggression and negativity inspires more negativity. When you actively employ your words and actions to help other people become happy, their happiness will reflect back onto you, instilling a sense of satisfaction and fulfillment. Happiness and goodwill are not limited commodities. There are, in fact, inexhaustible supplies.

**Strategy:** *Think about specific ways in which you can increase the happiness of the people in your life. They may involve bestowing a small kindness on someone you know casually or making a more significant commitment to someone to whom you are very close. Create and implement a plan for doing this during the next few days and then evaluate the results of your efforts. How did applying the extra effort to make others*



*happy make you feel? How did they respond? Doesn't it make sense to continue this effort and even to increase it?*

**Develop an Informed Moral Intuition** An informed moral intuition is the product of thoughtful exploration and reflection on moral issues throughout your life. Developing an informed, reliable moral intuition involves achieving insight into the essential nature of humans: what are the basic qualities that define what kind of individuals we ought to be and how we should treat others?

Once you have developed an intuition in which you have confidence, you need to *use* it to help you think your way through moral dilemmas. If your moral intuition is *informed*, the product of a great deal of thought and reflection, then it will have a high degree of credibility. But if our moral intuition is *uninformed*, the product of inaccurate information or inadequate experience, then your intuition will not be credible. People with depraved and underdeveloped moral sensibilities will have instincts and intuitions that reflect their diminished moral understanding. There is nothing magical or infallible about your conscience or moral understanding. If you have consciously worked at becoming a moral person, a person of character and integrity, then your intuitions will largely be trustworthy. But if you have not consciously striven to develop and refine your moral sensibilities, or if you have been raised in an environment saturated with destructive values that promote prejudice and violence, then you should be very suspicious of your moral intuitions.

**Strategy:** *Imagine an ideal, perfect human being: What personal qualities would such a person possess? How would such a person treat other people? What moral vision and specific moral values would such a person display? Using these explorations, construct a composite portrait of an ideal person that you can use to guide your own moral intuitions.*

**Choose to Be a Moral Person** Just as a person can possess an array of critical thinking abilities and yet choose not to use them, so also can a person be a walking compendium of moral theory and yet choose not to apply it to her own life. To achieve an enlightened moral existence in your own life, you need to decide to be a moral person struggling to live a moral life. You need to *value* morality, to aspire to an enhanced moral awareness, to exert the motivation and commitment required to reach this lofty but attainable goal.

Once you have developed a clear understanding of your own moral code, the struggle has just begun. Becoming a morally enlightened person—a person of character, compassion, and integrity—is a hard-won series of accomplishments, not a one-time award. Each day confronts you with new choices and unexpected challenges, many of which you cannot possibly anticipate. With

your moral code in hand to guide you, you will need to commit yourself to making the choices that best express your moral philosophy of life. As a reflective critical thinker, you will be conscious of the choices you are making and the reasons why you are making them, and you will “learn from experience,” refining your code of ethics and improving your moral choices through self-exploration. Achieving moral enlightenment is an ongoing process, and it is a struggle that is not for the faint-hearted. But it is a struggle that cannot be avoided if you are to live a life of purpose and meaning, one created by a self which is authentic and, as Aristotle would say, “great souled.”

**Strategy:** *Develop the habit of conducting a regular appraisal of your self and your life. Ask—and answer—questions such as these: Am I achieving my goals as a moral person? As a critical thinker? As a creative individual? Then use this evaluation regularly to maintain a much-needed perspective on your life, reminding yourself of the “big picture” and applying it to guide your evolution into the most worthy person you can become.*

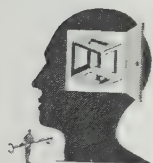
## Why Be Moral?

The considerations that we have been discussing provide a convincing answer to a pertinent question: *Why be moral?* As it turns out, becoming a moral person can help you become a psychologically healthy person; promoting the happiness of others frequently enhances your own happiness. Often adages are clichéd and empty of meaning, but in this case, “*Virtue is its own reward*” contains a substantial measure of truth, a point noted by Socrates in his observation that doing wrong “*will harm and corrupt that part of ourselves that is improved by just actions and destroyed by unjust actions.*”

As a free individual, you create yourself through the choices that you make much as a sculptor gradually forms a figure through countless cuts of the chisel. If you create yourself as a moral person, you create a person of character and worth, someone with an acute sense of right and wrong and the power to make appropriate choices. But if you *don't* choose to create yourself as a moral person, you will gradually become corrupted. You will lose your moral sensitivity, developing a moral blindness that will handicap your ability to see yourself or the world clearly. It is no wonder that Socrates believed that “*It is better to suffer wickedness than to commit it.*” You gain true power when you possess the unfettered and unrestrained ability to choose freely. Conversely, choosing immorality binds your hands, one loop of thread at a time, until your freedom of movement disappears. In the same way that substance abusers gradually

surrender their freedom of choice to their destructive cravings, so also do immoral people have only the illusion of genuine freedom in their lives. While moral people enjoy healthy personalities and spiritual wholeness, immoral people are corrupted at their core, progressively ravaged by a disease of the spirit.

### THINKING ACTIVITY 2.6 *NURTURING YOUR MORAL GROWTH*



No matter how highly evolved you are as a moral person, you can achieve a more enlightened state by choosing to nurture your moral growth. Your critical thinking abilities will give you the means to explore the moral dimensions of your experience with insight, and your personal dedication to moral improvement will provide you with the ongoing motivation. Remember that becoming a moral person is both a daily and a lifetime project. Nurture your continued moral growth by cultivating the qualities that we have been exploring in this section.

- Make morality a priority.
- Adopt the "Ethic of Justice."
- Adopt the "Ethic of Care."
- Universalize your moral choices.
- Treat people as ends, not as means.
- Accept responsibility for your moral choices.
- Seek to promote human happiness.
- Develop an informed moral intuition.
- Choose to be a moral person. ◀





## COLL 147

Name \_\_\_\_\_

1. Given the following situation use the Decision Making Model in the book to outline each step of your decision.

*"Your son or daughter has been acting strange around you and finally asks you to sit down and have a conversation with them. You do so and your son or daughter tells you that he is gay or she is a lesbian."*

What do you say and do?








## What Is Your Decision?

### The SITUATION:

Aliens have descended upon the United States. According to the Secretary of Defense, they have a full complement of weapons—enough to destroy every city and kill every citizen. The aliens have offered to remove all pollutants from all oceans, rivers, lakes, and streams; to repair all ozone holes; and to replenish all fossil fuels with in the United States in exchange for all 5- to 13-year-old children.

*What is your decision?*

### BACKGROUND INFORMATION:

-  All fossil fuels will be depleted within 50 years.
-  Each year several gallons of oil, pesticides, and trash are dumped in all water bodies. All pollutants threaten the quality of drinking water, agricultural usage, water life etc.
-  Stratospheric ozon levels are near their lowest point since measurements began, so current UV-B radiation levels are thought to be close to their maximum.
-  Greenhouse effect—average temperatures, sea levels, air pollution and lung diseases have increased disproportionately.
-  As of May 1, 1999, there were 35 million children that are between the ages of 5 to 13. Total US population is 273 million.





## What Is Your Decision?

As the United States Executive Cabinet you must make a decision whether to exchange all the 5- to 13-year-old children for an environmentally sound United States. Use the following decision making model:

1. Define clearly the decision to be made.

2. Consider all possible choices.

3. Gather all relevant information and evaluate the pros and cons of each possible choice.

4. Select the choice(s) that best meet the needs of the situation.

# CHAPTER 3 SOLVING PROBLEMS

## AN ORGANIZED APPROACH TO ANALYZING DIFFICULT PROBLEMS

### Step One: What Is the Problem?

What do I know about the situation?  
What results am I aiming for?  
How can I define the problem?

### Step Two: What Are the Alternatives?

What are the boundaries?  
What are possible alternatives?

### Step Three: What Are the Advantages and/or Disadvantages of Each Alternative?

What are the advantages?  
What are the disadvantages?  
What additional information do I need?

### Step Five: How Well Is the Solution Working?

What is my evaluation?  
What adjustments are necessary?

### Step Four: What Is the Solution?

Which alternatives will I pursue?  
What steps can I take?

Solving the  
Problem of Not  
Enough Money

Solving the  
Problem of Not  
Enough Time

---

## THINKING CRITICALLY ABOUT PROBLEMS

THROUGHOUT YOUR LIFE, you are continually solving problems, including the many minor problems that you solve each day: negotiating a construction delay on the road, working through an unexpected difficulty at your job, helping an upset child deal with a disappointment. As a student, you are faced with a steady stream of academic assignments, quizzes, exams, and papers. Relatively simple problems like these do not require a systematic or complex analysis. You can solve them with just a little effort and concentration. For example, in order to do well on an exam, you need to *define* the problem (what areas will the exam cover, and what will be the format?), identify and evaluate various *alternatives* (what are possible study approaches?), and then put all these factors together to reach a *solution* (what will be your study plan and schedule?). But the difficult and complicated problems in life require more attention.

The idea of “having a problem” certainly conjures up unpleasant associations for most people, but the truth is that solving problems is an integral and natural part of the process of living. It is the human ability to solve problems that accounts for our successful longevity on this planet. At the same time, it is our *inability* to solve problems that has resulted in senseless wars, unnecessary famine, and irrational persecution. You can undoubtedly discern this same duality in your own life: your most satisfying accomplishments are likely to be the consequence of successful problem-solving, while your greatest disappointments probably resulted at least in part from your failure to solve some crucial problems. For example, think about some of the very difficult problems you have solved through dedication and intelligent action. How did your success make you feel? What were some of the positive results of your success? On the other hand, review some of the significant problems that you were not able to solve. What were some of the negative consequences of your failed efforts? The psychiatrist and author M. Scott Peck sums up the centrality of problems in our lives:

Problems call forth our courage and our wisdom; indeed, they create our courage and our wisdom. It is only because of problems that we grow mentally and spiritually. When we desire to encourage the growth of the human spirit, we challenge and encourage the human capacity to solve problems, just as in school we deliberately set problems for our children to solve.

Problems are the crucible that forges the strength of our characters. When you are tested by life, forced to overcome adversity and think your way through



the most challenging situations—you will emerge a more intelligent, resourceful, and resilient person. However, if you lead a sheltered existence which insulates you from life's trials, or if you flee from situations at the first sign of trouble—then you will be weak and unable to cope with the eruptions and explosions that are bound to occur in your carefully protected world. Adversity reveals for all to see the person you have become, the character you have created. As the Roman philosopher and poet Lucretius explained, "So it is more useful to watch a man in times of peril, and in adversity to discern what kind of man he is; for then, at last, words of truth are drawn from the depths of his heart, and the mask is torn off, reality remains."

The quality of your life can be traced in large measure to your competency as a problem-solver. The fact that some people are consistently superior problem-solvers is largely due to their ability to approach problems in an informed and organized way. Less competent problem-solvers just muddle through when it comes to confronting adversity, using hit-or-miss strategies that rarely provide the best results. How would you rate yourself as a problem-solver? Do you generally approach difficulties confidently, analyze them clearly, and reach productive solutions? Or do you find that you often get "lost" and confused in such situations, unable to understand the problem clearly and to break out of mental ruts? Of course, you may find that you are very adept at solving problems in one area of your life—such as your job—and miserable at solving problems in other areas, such as your love life or your relationships with your children.

If you are less able to solve complex and challenging problems than you would like to be, don't despair! Becoming an expert problem-solver is not a genetic award; it is, for the most part, a learned skill that you can develop by practicing and applying the principles described in this chapter. You can learn to view problems as *challenges*, opportunities for growth instead of obstacles or burdens. You can become a person who attacks adversity with confidence and enthusiasm. This possibility may seem unlikely to you at this point, but I can assure you that, based on my experience teaching thousands of people for the past twenty years, becoming an expert problem-solver is well within your grasp.

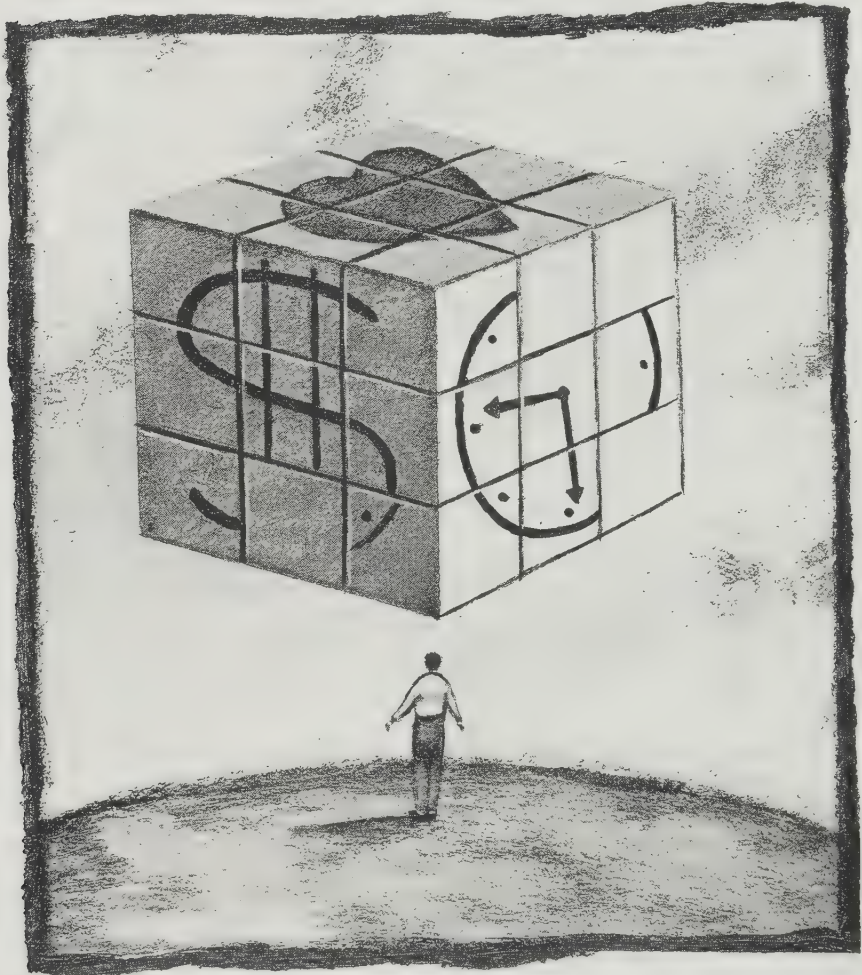
---

## INTRODUCTION TO SOLVING PROBLEMS

Consider the following problem:

My best friend is addicted to drugs, but he won't admit it. Jack always liked to drink, but I never thought too

much about it. After all, a lot of people like to drink socially, get relaxed, and have a good time. But over the last few years he's started using other drugs as well as alcohol, and it's ruining his life. He's stopped taking classes at the college and will soon lose his job if he doesn't change. Last week I told him that I was really



*Successful problem-solvers are able to deal effectively with the many problems that they encounter in daily life.*

worried about him, but he told me that he has no drug problem and that in any case it really isn't any of my business. I just don't know what to do. I've known Jack since we were in grammar school together and he's a wonderful person. It's as if he's in the grip of some terrible force and I'm powerless to help him.

In working through this problem, the student who wrote this description will have to think carefully and systematically in order to reach a solution. When we think effectively in situations like this, we usually ask ourselves a series of questions, although we may not be aware of the process that our minds are going through.

1. What is the *problem*?
2. What are the *alternatives*?
3. What are the *advantages* and /or *disadvantages* of each alternative?
4. What is the *solution*?
5. How well is the solution *working*?

Let's explore these questions further—and the thinking process that they represent—by applying them to the problem described here. Put yourself in the position of the student whose friend seems to have a serious drug problem.

### ***What Is the Problem?***

There are a variety of ways to define the problem facing this student. Describe as specifically as possible what *you* think the problem is.

### ***What Are the Alternatives?***

In dealing with this problem, you have a wide variety of possible actions to consider before selecting the best choices. Identify some of the alternatives you might consider.

1. Speak to my friend in a candid and forceful way to convince him that he has a serious problem.
- 2.
- etc.

### *What Are the Advantages and/or Disadvantages of Each Alternative?*

Evaluate the strengths and weaknesses of each of the problems you identified so you can weigh your choices and decide on the best course of action.

1. Speak to my friend in a candid and forceful way to convince him that he has a serious problem.

*Advantage:* He may respond to my direct emotional appeal, acknowledge that he has a problem, and seek help.

*Disadvantage:* He may react angrily, further alienating me from him and making it more difficult for me to have any influence on him.

- 2.

*Advantage:*

*Disadvantage:*

etc.

### *What Is the Solution?*

After evaluating the various alternatives, select what you think is the most effective alternative for solving the problem and describe the sequence of steps you would take to act on the alternative.

### *How Well Is the Solution Working?*

The final step in the process is to review the solution and decide whether it is working well. If it is not, you must be able to modify your solution or perhaps choose an alternate solution that you had disregarded earlier. Describe what results would inform you that the alternative you had selected to pursue was working well or poorly. If you concluded that your alternative was working poorly, describe what your next action would be.

In this situation, trying to figure out the best way to help your friend recognize his problem and seek treatment leads to a series of decisions. This is what the thinking process is all about—trying to make sense of what is going on in our world and acting appropriately in response. When we solve problems effectively, our thinking process exhibits a coherent organization. It follows the general approach we have just explored.



**PROBLEM-SOLVING METHOD (BASIC)**

1. What is the *problem*?
2. What are the *alternatives* available to me?
3. What are the *advantages* and/or *disadvantages* of each alternative?
4. What is the *solution*?
5. How well is the solution *working*?

If we can understand the way our minds operate when we are thinking effectively, then we can apply this understanding to improve our thinking in new, challenging situations. In the remainder of this chapter, we will explore a more sophisticated version of this problem-solving approach and will apply it to a variety of complex, difficult problems.

**THINKING ACTIVITY 3.1 ANALYZING A PROBLEM YOU SOLVED**

1. Describe in specific detail an important problem you have solved recently.
2. Explain how you went about solving the problem. What were the steps, strategies, and approaches you used to understand the problem and make an informed decision?
3. Analyze the organization exhibited by your thinking process by completing the five-step problem-solving method we have been exploring.
4. Share your problem with other members of the class and have them try to analyze and solve it. Then explain the solution you arrived at. ◀

**SOLVING COMPLEX PROBLEMS**

Imagine yourself in the following situations. What would your next move be, and what are your reasons for it?

**Procrastination** I am a procrastinator. Whenever I have something important to do, especially if it's difficult or unpleasant, I tend to put it off. Though this chronic delaying bothers me, I try to suppress my concern and instead work on more trivial things. It doesn't matter how much time I allow for certain responsibilities, I always end up waiting until the last minute to really focus and get things done, or I overschedule too many things for the time

available. I usually meet my deadlines, but not always, and I don't enjoy working under this kind of pressure. In many cases I know that I'm not producing my best work. To make matters worse, the feeling that I'm always behind is causing me to feel really stressed out and is undermining my confidence. I've tried every kind of schedule and technique, but my best intentions simply don't last, and I end up slipping into my old habits. I must learn to get my priorities in order and act on them in an organized way so that I can lead a well-balanced and happier life.

**Losing weight** My problem is the unwelcome weight that has attached itself to me. I was always in pretty good physical shape when I was younger, and if I gained a few extra pounds, they were easy to lose if I adjusted my diet slightly or exercised a little more. As I've gotten older, however, it seems easier to add the weight and more difficult to take it off. I'm eating healthier than I ever have before and getting just as much exercise, but the pounds just keep on coming. My clothes are tight, I'm feeling slow and heavy, and my self-esteem is suffering. How can I lost this excess poundage?

**Smoking** One problem in my life that has remained unsolved for about twelve years is my inability to stop smoking. I know it is dangerous for my health, and I tell my children that they should not smoke. They then tell me that I should stop, and I explain to them that it is very hard to do. I have tried to stop many times without success. The only times I previously was able to stop were during my two pregnancies, because I didn't want to endanger my children's health. But after their births, I went back to smoking, although I realize that second-hand smoke can also pose a health hazard. I want to stop smoking because it's dangerous, but I also enjoy it. Why do I continue, knowing it can only damage me and my children?

**Loss of Financial Aid** I'm just about to begin my second year of college, following a very successful first year. To this point, I have financed my education through a combination of savings, financial aid, and a part-time job (sixteen hours per week) at a local store. However, I just received a letter from my college stating that it was reducing my financial aid package by



*Solving complex problems requires us to think critically about the problem, analyzing it with a thoughtful, organized approach.*

half due to budgetary problems. The letter concludes, "We hope this aid reduction will not prove to be too great an inconvenience." From my perspective, this reduction in aid isn't an inconvenience—it's a disaster! My budget last year was already tight, and with my job, I had barely enough time to study, participate in a few college activities, and have a modest (but essential) social life. To make matters worse, my mother has been ill, a condition which has reduced her income and created financial problems at home. I'm feeling panicked! What in the world am I going to do?

When we first approach a difficult problem, it often seems a confused tangle of information, feelings, alternatives, opinions, considerations, and risks. The problem of the college student just described is a complicated situation that does not seem to offer a single simple solution. Let's imagine ourselves in the student's predicament. Without the benefit of a systematic approach, our thoughts might wander through the tangle of issues like this:

I want to stay in school . . . but I'm not going to have enough money. . . . I could work more hours at my job . . . but I might not have enough time to

study and get top grades . . . and if all I'm doing is working and studying, what about my social life? . . . and what about mom and the kids? . . . They might need my help. . . . I could drop out of school for a while . . . but if I don't stay in school, what kind of future do I have? . . .

Very often when we are faced with difficult problems like this, we simply do not know where to begin in trying to solve them. Every issue is connected to many others. Frustrated by not knowing where to take the first step, we often give up trying to understand the problem. Instead, we may

1. *Act impulsively* without thought or consideration (e.g., "I'll just quit school").
2. *Do what someone else suggests* without seriously evaluating the suggestion (e.g., "Tell me what I should do—I'm tired of thinking about this").
3. *Do nothing* as we wait for events to make the decision for us (e.g., "I'll just wait and see what happens before doing anything").

None of these approaches is likely to succeed in the long run, and they can gradually reduce our confidence in dealing with complex problems. An alternative to these reactions is to *think critically* about the problem, analyzing it with an organized approach based on the five-step method described earlier.

#### **PROBLEM-SOLVING METHOD (ADVANCED)**

- 1. Step 1: What is the problem?**
  - a. What do I know about the situation?
  - b. What results am I aiming for in this situation?
  - c. How can I define the problem?
- 2. Step 2: What are the alternatives?**
  - a. What are the boundaries of the problem situation?
  - b. What alternatives are possible within these boundaries?
- 3. Step 3: What are the advantages and/or disadvantages of each alternative?**
  - a. What are the advantages of each alternative?
  - b. What are the disadvantages of each alternative?
  - c. What additional information do I need to evaluate each alternative?
- 4. Step 4: What is the solution?**
  - a. Which alternative(s) will I pursue?
  - b. What steps can I take to act on the alternative(s) chosen?
- 5. Step 5: How well is the solution working?**
  - a. What is my evaluation?
  - b. What adjustments are necessary?



Although we will be using an organized method for working through difficult problems and arriving at thoughtful conclusions, the fact is that our minds do not always work in such a logical, step-by-step fashion. Effective problem-solvers typically pass through all the steps we will be examining, but they don't always do so in the sequence we will be describing. Instead, the best problem-solvers have an integrated and flexible approach to the process in which they deploy a repertoire of problem-solving strategies as needed. Sometimes exploring the various alternatives helps them go back and redefine the original problem; similarly, seeking to implement the solution can often suggest new alternatives.

The key point is that although the problem-solving steps are presented in a logical sequence here, you are not locked into following these steps in a mechanical and unimaginative way. At the same time, in learning a problem-solving method like this it is generally not wise to skip steps, because each step deals with an important aspect of the problem. As you become more proficient in using the method, you will find that you can apply its concepts and strategies to problem-solving in an increasingly flexible and natural fashion, just as learning the basics of an activity like driving a car gradually gives way to a more organic and integrated performance of the skills involved.

Before applying a method like the one just outlined above to your problem, however, you need to first ready yourself by *accepting* the problem.

---

## ACCEPTING THE PROBLEM

To solve a problem, you must first be willing to *accept* the problem by *acknowledging* that the problem exists and *committing* yourself to trying to solve it. Sometimes you may have difficulty recognizing there *is* a problem unless it is pointed out to you. Other times you may actively resist acknowledging a problem, even when it is pointed out to you. The person who confidently states, "I don't really have any problems," sometimes has very serious problems—but is simply unwilling to acknowledge them.

On the other hand, mere acknowledgment is not enough to solve a problem. Once you have identified a problem, you must commit yourself to trying to solve it. Successful problem-solvers are highly motivated and willing to persevere through the many challenges and frustrations of the problem-solving process. How do you find the motivation and commitment that prepare you to

enter the problem-solving process? There are no simple answers, but a number of strategies may be useful to you.

1. *List the benefits.* Making a detailed list of the benefits you will derive from successfully dealing with the problem is a good place to begin. Such a process helps you clarify why you might want to tackle the problem, motivates you to get started, and serves as a source of encouragement when you encounter difficulties or lose momentum.
2. *Formalize your acceptance.* When you formalize your acceptance of a problem, you are “going on record,” either by preparing a signed declaration or by signing a “contract” with someone else. This formal commitment serves as an explicit statement of your original intentions that you can refer to if your resolve weakens.
3. *Accept responsibility for your life.* Each one of us has the potential to control the direction of our lives, but to do so we must accept our freedom to choose and the responsibility that goes with it. As you saw in Chapter 1, critical thinkers actively work to take charge of their lives rather than letting themselves be passively controlled by external forces.
4. *Create a “worst-case” scenario.* Some problems persist because you are able to ignore their possible implications. When you use this strategy, you remind yourself, as graphically as possible, of the potentially disastrous consequences of your actions. For example, using vivid color photographs and research conclusions, you can remind yourself that excessive smoking, drinking, or eating can lead to myriad health problems and social and psychological difficulties as well as an early and untimely demise.
5. *Identify what’s holding you back.* If you are having difficulty accepting a problem, it is usually because something is holding you back. For example, you might be concerned about the amount of time and effort involved, you might be reluctant to confront the underlying issues that the problem represents, you might be worried about finding out unpleasant things about yourself or others, or you might be inhibited by other problems in your life, such as a tendency to procrastinate. Whatever the constraints, using this strategy involves identifying and describing all of the factors that are preventing you from attacking the problem and then addressing these factors one at a time.

---

## STEP 1: WHAT IS THE PROBLEM?

The first step in solving problems is to determine exactly what the central issues of the problem are. If you do not clearly understand what the problem really is, then your chances of solving it are considerably reduced. You may spend your time trying to solve the wrong problem. For example, consider the different formulations of the following problems. How might these formulations lead you in different directions in trying to solve the problems?

"School is boring." vs. "I feel bored in school."

"I'm a failure." vs. "I just failed an exam."

In each of these cases, a very general conclusion (left column) has been replaced by a more specific characterization of the problem (right column).

The general conclusions ("I'm a failure") do not suggest productive ways of resolving the difficulties. They are too absolute, too all encompassing. On the other hand, the more specific descriptions of the problem situation ("I just failed an exam") *do* permit us to attack the problem with useful strategies. In short, the way you define a problem determines not only *how* you will go about solving it, but also whether you feel that the problem can be solved at all. Correct identification of a problem is essential if you are going to be able to perform a successful analysis and reach an appropriate conclusion. If you misidentify the problem, you can find yourself pursuing an unproductive and even destructive course of action.

Let us return to the problem of the college finances we encountered on page 116 and analyze it using our problem-solving method. (*Note:* As you work through this problem-solving approach, apply the steps and strategies to an unsolved problem in your own life. You will have an opportunity to write up your analysis when you complete Thinking Activity 3.2 on page 133.) In order to complete the first major step of this problem-solving approach—"What is the problem?"—you need to address three component questions:

1. What do I know about the situation?
2. What results am I aiming for in this situation?
3. How can I define the problem?

### *Step 1A: What Do I Know About the Situation?*

Solving a problem begins with determining what information you *know* to be the case and what information you *think* might be the case. Your need to have a clear idea of the details of your beginning circumstances to explore the problem

successfully. Sometimes a situation may appear to be a problem when it really isn't simply because your information isn't accurate. For example, you might be convinced that someone you are attracted to doesn't reciprocate your interest. If this belief is inaccurate, however, then your "problem" doesn't really exist.

You can identify and organize what you know about the problem situation by using *key questions*. In Chapter 1, we examined six types of questions that can be used to explore situations and issues systematically: *fact*, *interpretation*, *analysis*, *synthesis*, *evaluation*, and *application*. By asking—and trying to answer—questions of fact, you are establishing a sound foundation for the exploration of your problem. Answer the following questions of fact—who, what, where, when, how, why—about the problem described at the beginning of the chapter.

1. *Who* are the people involved in this situation?  
*Who* will benefit from solving this problem?  
*Who* can help me solve this problem?
2. *What* are the various parts or dimensions of the problem?  
*What* are my strengths and resources for solving this problem?  
*What* additional information do I need to solve this problem?
3. *Where* can I find people or additional information to help me solve the problem?
4. *When* did the problem begin?  
*When* should the problem be resolved?
5. *How* did the problem develop or come into being?
6. *Why* is solving this problem important to me?  
*Why* is this problem difficult to solve?
7. *Additional questions:*

### ***Step 1B: What Results Am I Aiming for in This Situation?***

The second part of answering the question "What is the problem?" consists of identifying the specific *results* or objectives you are trying to achieve. The results are those goals that will eliminate the problem if you are able to attain them. Whereas the first part of Step 1 oriented you in terms of the history of the problem and the current situation, this part encourages you to look ahead to the future. In this respect, it is similar to the process of establishing and working toward your goals that you examined in Chapter 2. To identify your results, you need to ask yourself this question: "What are the objectives that, once



achieved, will solve this problem?" For instance, one of the results or objectives in the sample problem might be having enough money to pay for college. Describe additional results you might be trying to achieve in this situation.

### *Step 1C: How Can I Define the Problem?*

After exploring what you know about the problem and the results you are aiming to achieve, you need to conclude Step 1 by defining the problem as clearly and specifically as possible. Defining the problem is a crucial task in the entire problem-solving process because this definition will determine the direction of the analysis. To define the problem, you need to identify its central issue(s). Sometimes defining the problem is relatively straightforward, such as: "Trying to find enough time to exercise." Often, however, identifying the central issue of a problem is a much more complex process. For example, the statement "My problem is relating to other people" suggests a complicated situation with many interacting variables that resists simple definition. In fact, you may only begin to develop a clear idea of the problem as you engage in the process of trying to solve it. You might begin by believing that your problem is, say, not having the *ability* to succeed and end by concluding that the problem is really a *fear* of success. As you will see, the same insights apply to nonpersonal problems as well. For example, the problem of high school dropouts might initially be defined in terms of problems in the school system, whereas later formulations may identify drug use or social pressure as the core of the problem.

Although there are no simple formulas for defining challenging problems, you can pursue several strategies in identifying the central issue most effectively:

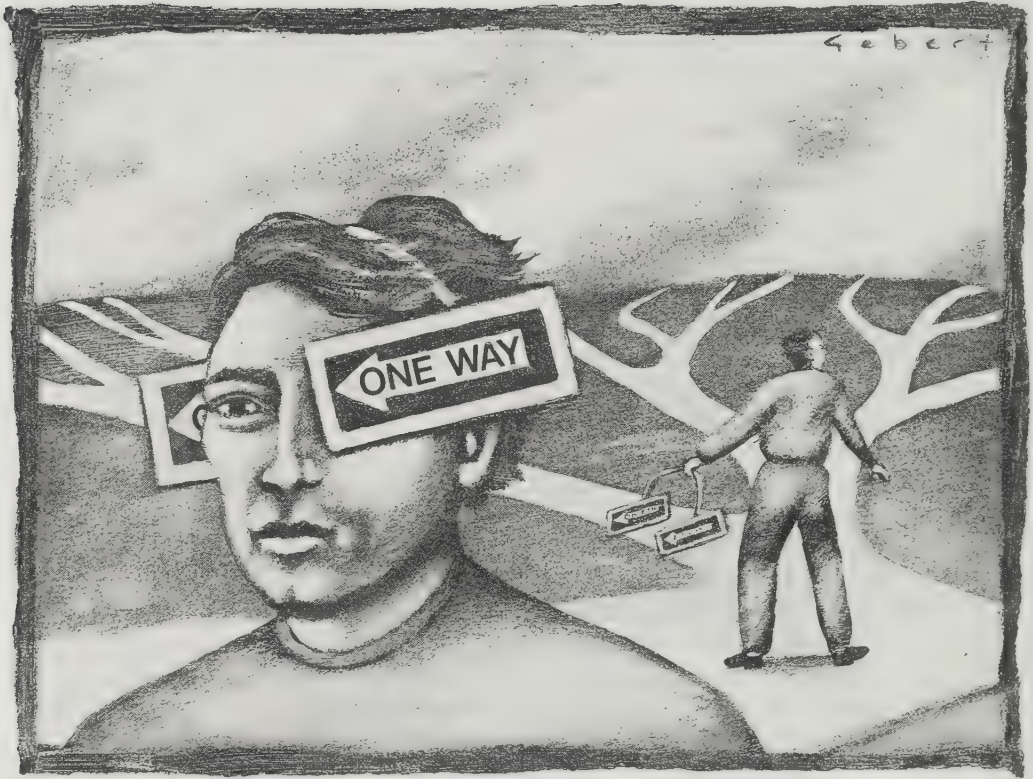
1. *View the problem from different perspectives.* As you saw in Chapter 1, perspective-taking is a key ingredient of thinking critically, and it can help you zero in on many problems as well. For example, when you describe how various individuals might view a given problem—such as the high school dropout rate—the essential ingredients of the problem begin to emerge. In the college finances problem, how would you describe the following perspectives?

*Your perspective:*

*The college's perspective:*

*Your mother's perspective:*

2. *Identify component problems.* Larger problems are often composed of component problems. To define the larger problem, it is often necessary to iden-



*Viewing a problem from different perspectives helps us define the problem clearly and generate a variety of possible solutions.*

tify and describe the subproblems that comprise it. For example, poor performance at school might be the result of a number of factors, such as ineffective study habits, inefficient time management, and preoccupation with a personal problem. Defining, and dealing effectively with, the larger problem means defining and dealing with the subproblems first. Identify possible subproblems in the sample problem:

*Subproblem a:*

*Subproblem b:*

3. *State the problem clearly and specifically.* A third defining strategy is to state the problem as clearly and specifically as possible, based on an examination

of the results that need to be achieved to solve the problem. This sort of clear and specific description of the problem is an important step in solving it. For if you state the problem in *very general* terms, you won't have a clear idea of how best to proceed in dealing with it. But if you can describe your problem in more *specific terms*, then your description will begin to suggest actions you can take to solve the problem. Examine the differences between the statements of the following problem:

*General:* "My problem is money."

*More specific:* "My problem is budgeting my money so that I won't always run out near the end of the month."

*Most specific:* "My problem is developing the habit and the discipline to budget my money so that I won't always run out near the end of the month."

Review your analysis of the sample problem and then state the problem as clearly and specifically as possible.

---

## STEP 2: WHAT ARE THE ALTERNATIVES?

Once you have identified your problem clearly and specifically, your next move is to examine each of the possible actions that might help you solve the problem. Before you list the alternatives, however, it makes sense to determine first which actions are possible and which are impossible. You can do this by exploring the *boundaries* of the problem situation.

### *Step 2A: What Are the Boundaries of the Problem Situation?*

Boundaries are the limits in the problem situation that you cannot change. They are a part of the problem, and they must be accepted and dealt with. For example, in the sample situation, the fact that a day has only twenty-four hours must be accepted as part of the problem situation. There is no point in developing alternatives that ignore this fact. At the same time, you must be careful not to identify as boundaries circumstances that can actually be changed. For instance, you might assume that your problem must be solved in your current location without realizing that relocating to another, less expensive college is one of your options. Identify additional boundaries that might be a part of the

sample situation and some of the questions you would want to answer regarding the boundary. For example:

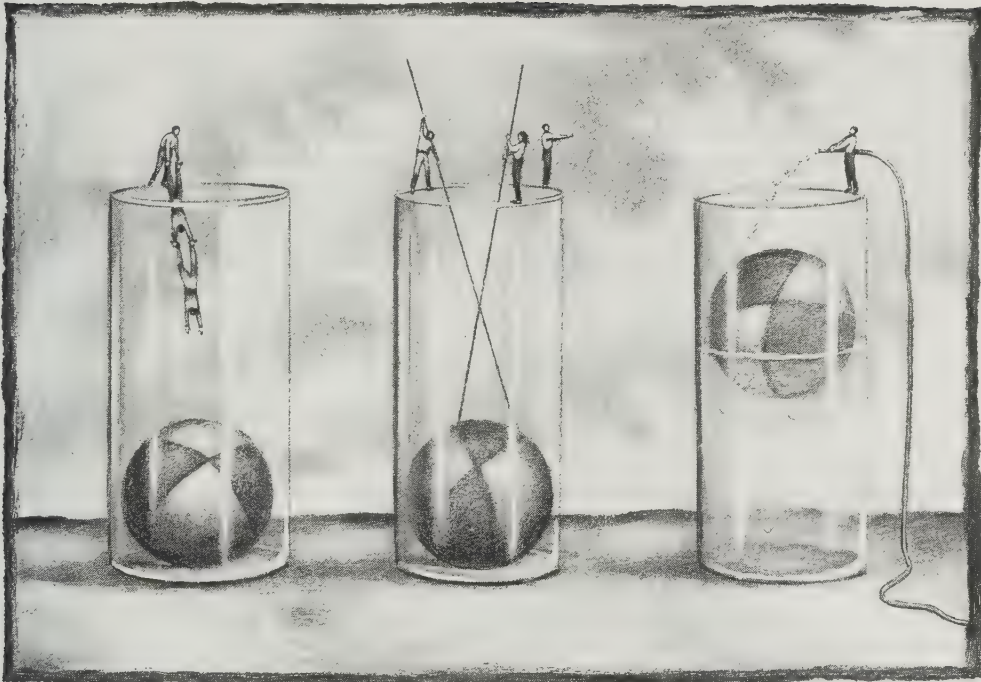
*Time limitations:* How much time do I need for each of my basic activities—work, school, social life, travel, and sleep? What is the best way to budget this time?

### ***Step 2B: What Alternatives Are Possible Within These Boundaries?***

After you have established a general idea of the boundaries of the problem situation, you can proceed to identify the possible courses of action that can take place within these boundaries. Of course, identifying all the possible alternatives is not always easy; in fact, it may be part of your problem. Often we do not see a way out of a problem because our thinking is set in certain ruts, fixed in certain perspectives. We may be blind to other approaches, either because we reject them before seriously considering them (“That will never work!”) or because they simply do not occur to us. You can use several strategies to overcome these obstacles:

1. *Discuss the problem with other people.* Discussing possible alternatives with others uses a number of the aspects of critical thinking you explored in Chapter 1. As you saw then, thinking critically involves being open to seeing situations from different viewpoints and discussing your ideas with others in an organized way. Both of these abilities are important in solving problems. As critical thinkers we live—and solve problems—in a community, not simply by ourselves. Other people can often suggest possible alternatives that we haven’t thought of, in part because they are outside the situation and thus have a more objective perspective, and in part because they naturally view the world differently than we do, based on their past experiences and their personalities. In addition, discussions are often creative experiences that generate ideas the participants would not have come up with on their own. The dynamics of these interactions often lead to products that are greater than the individual “sum” of those involved.
2. *Brainstorm ideas.* Brainstorming, a method introduced by Alex Osborn, builds on the strengths of working with other people to generate ideas and solve problems. In a typical brainstorming session, a group of people work together to generate as many ideas as possible in a specific period of time.





*The best approach to solving problems involves generating many different possible alternatives instead of just a few.*

As ideas are produced, they are not judged or evaluated, as this tends to inhibit the free flow of ideas and discourages people from making suggestions. Evaluation is deferred until a later stage. People are encouraged to build on the ideas of others since the most creative ideas are often generated through the constructive interplay of various minds.

3. **Change your location.** Your perspective on a problem is often tied into the circumstances in which the problem exists. For example, a problem you may be having in school is tied into your daily experiences and habitual reactions to these experiences. Sometimes what you need is a fresh perspective, getting away from the problem situation so that you can view it with more clarity and in a different light. Using these strategies, as well as your own reflections, identify as many alternatives to help solve the sample problem that you can think of.

---

### STEP 3: WHAT ARE THE ADVANTAGES AND/OR DISADVANTAGES OF EACH ALTERNATIVE?

Once you have identified the various alternatives, your next step is to *evaluate* them by using the kinds of evaluation questions described in Chapter 1. Each possible course of action has certain advantages in the sense that if you select that alternative, there will be some positive results. At the same time, each of the possible courses of action likely has disadvantages as well in the sense that if you select that alternative, there may be a cost involved or a risk of some negative results. It is important to examine the potential advantages and/or disadvantages in order to determine how helpful each course of action would be in solving the problem.

#### *Step 3A: What Are the Advantages of Each Alternative?*

The alternative you listed in Step 2 for the sample problem ("Attend college part-time") might include the following advantages:

*Alternatives:*

1. Attend college part-time

*Advantages:*

This would remove some of the immediate time and money pressures I am experiencing while still allowing me to prepare for the future. I would have more time to focus on the courses that I am taking and to work additional hours.

Identify the advantages of each of the alternatives that you listed in Step 2. Be sure that your responses are thoughtful and specific.

#### *Step 3B: What Are the Disadvantages of Each Alternative?*

You also need to consider the disadvantages of each alternative. The alternative you listed for the sample problem might include the following disadvantages:

*Alternatives:*

1. Attend college part-time

*Disadvantages:*

It would take me much longer to complete my schooling, thus delaying my progress toward my goals. Also, I might lose motivation and drop out before completing school because the process was taking so long. Being a part-time student might even threaten my eligibility for financial aid.

Now identify the disadvantages of each of the alternatives that you listed. Be sure that your responses are thoughtful and specific.

### *Step 3C: What Additional Information Do I Need to Evaluate Each Alternative?*

The next part of Step 3 consists of determining what you must know (*information needed*) to best evaluate and compare the alternatives. For each alternative there are questions that must be answered if you are to establish which alternatives make sense and which do not. In addition, you need to figure out where best to get this information (*sources*).

One useful way to identify the information you need is to ask yourself the question “What if I select this alternative?” For instance, one alternative in the sample problem was “attend college part-time.” When you ask yourself the question “What if I attend college part-time?” you are trying to predict what will occur if you select this course of action. To make these predictions, you must answer certain questions and find the information to answer them.

- How long will it take me to complete my schooling?
- How long can I continue in school without losing interest and dropping out?
- Will I threaten my eligibility for financial aid if I become a part-time student?

The information—and the sources for it—that must be located for the first alternative in the sample problem might include the following:

*Alternative:*

1. Attend college part-time

*Information Needed and Sources:*

*Information:* How long will it take me to complete my schooling? How long can I continue in school without losing interest and dropping out? Will I threaten my eligibility for financial aid if I become a part-time student?

*Sources:* Myself, other part-time students, school counselors, the financial aid office.

Identify the information needed and the sources of this information for each of the alternatives that you identified. Be sure that your responses are thoughtful and specific.

---

## STEP 4: WHAT IS THE SOLUTION?

The purpose of Steps 1 through 3 is to analyze your problem in a systematic and detailed fashion—to work through the problem in order to become thoroughly familiar with it and the possible solutions to it. After breaking down the problem in this way, the final step should be to try to put the pieces back together—that is, to decide on a thoughtful course of action based on your increased understanding. Even though this sort of problem analysis does not guarantee finding a specific solution to the problem, it should *deepen your understanding* of exactly what the problem is about. And in locating and evaluating your alternatives, it should give you some very good ideas about the general direction you should move in and the immediate steps you should take.

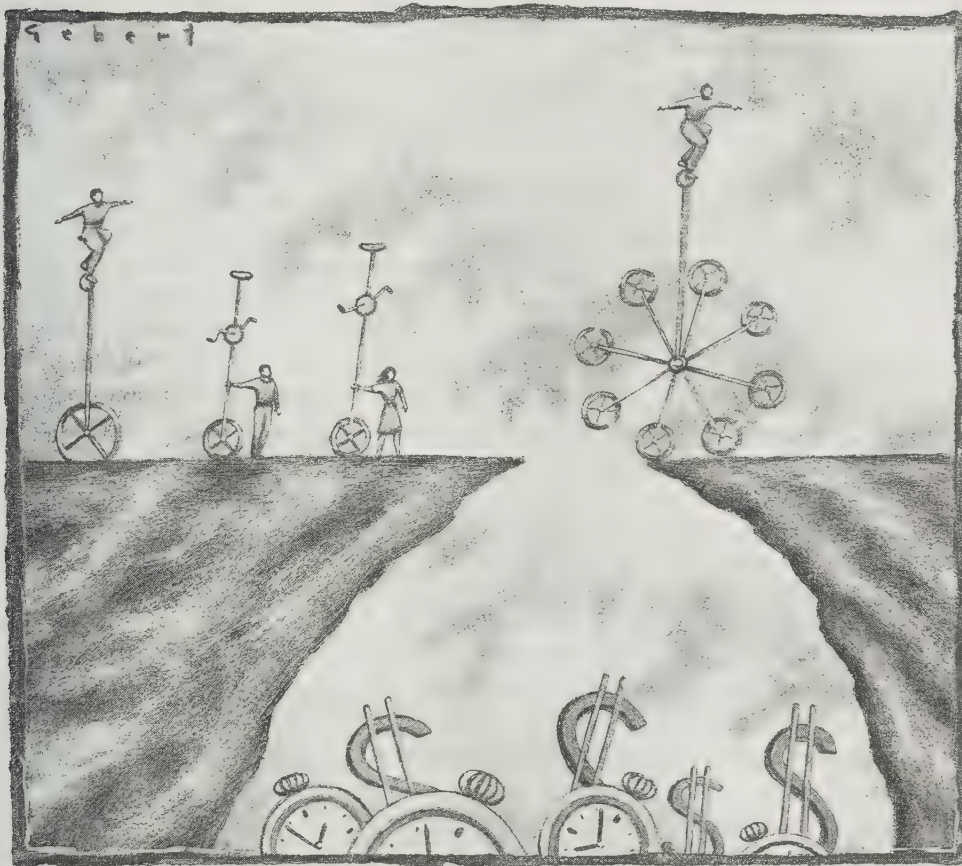
### *Step 4A: Which Alternative(s) Will I Pursue?*

There is no simple formula or recipe to tell you which alternatives to select. As you work through the different courses of action that are possible, you may find that you can immediately rule some out. For example, in the sample problem you may know with certainty that you do not want to attend college part-time (alternative 1) because you will forfeit your remaining financial aid. However, it may not be so simple to select which of the other alternatives you wish to pursue. How do you decide?

The decisions we make usually depend on what we believe to be most important to us. These beliefs regarding what is most important to us are known as *values*. Our values are the starting points of our actions and strongly influence our decisions. For example, if we value staying alive (as most of us do), then we will make many decisions each day that express this value—eating proper meals, not walking in front of moving traffic, and so on.

Our values help us *set priorities* in life—that is, decide what aspects of our lives are most important to us. We might decide that for the present going to school is more important than having an active social life. In this case, going to school is a higher priority than having an active social life. Unfortunately, our





*Effective problem-solvers develop creative solutions to solve their problems.*

values are not always consistent with each other—we may have to choose *either* to go to school or to have an active social life. Both activities may be important to us; they are simply not compatible with each other. Very often the *conflicts* between our values constitute the problem. Let's examine some strategies for selecting alternatives that might help us solve the problem.

1. *Evaluate and compare alternatives.* Although each alternative may have certain advantages and disadvantages, not all advantages are equally desirable or potentially effective. For example, giving up on college entirely would certainly solve some aspects of the sample problem, but its obvious

disadvantages would rule out this solution for most people. Thus it makes sense to try to evaluate and rank the various alternatives based on how effective they are likely to be and how they match up with your value system. A good place to begin is the “Results” stage, Step 1B. Examine each of the alternatives and evaluate how well it will contribute to achieving the results you are aiming for in the situation. You may want to rank the alternatives or develop your own rating system to assess their relative effectiveness.

After evaluating the alternatives in terms of their anticipated *effectiveness*, the next step is to evaluate them in terms of their *desirability*, based on your needs, interests, and value system. Again, you can use either a ranking or a rating system to assess their relative desirability. After completing these two separate evaluations, you can then select the alternative(s) that seem most appropriate. Review the alternatives you identified in the sample problem and then rank or rate them according to their potential effectiveness and desirability, assuming this problem was your own.

2. *Combine alternatives.* After reviewing and evaluating the alternatives you generated, you may develop a new alternative that combines the best qualities of several options while avoiding the disadvantages some of them would have if chosen exclusively. In the sample problem, you might combine attending college part-time during the academic year with attending school during the summer session so that progress toward your degree won't be impeded. Examine the alternatives you identified and develop a new option that combines the best elements of several of them.
3. *Try out each alternative in your imagination.* Focus on each alternative and try to imagine, as concretely as possible, what it would be like if you actually selected it. Visualize what impact your choice would have on your problem and what the implications would be for your life as a whole. By trying out the alternative in your imagination, you can sometimes avoid unpleasant results or unexpected consequences. As a variation of this strategy, you can sometimes test alternatives on a very limited basis in a practice situation. For example, if you are trying to overcome your fear of speaking in groups, you can practice various speaking techniques with your friends or family until you find an approach you are comfortable with.

After trying out these strategies on the sample problem, select the alternative(s) you think would be most effective and desirable from your standpoint.

*Alternative(s):*

### *Step 4B: What Steps Can I Take to Act on the Alternative(s) Chosen?*

Once you have decided on the correct alternative(s) to pursue, your next move is to plan the steps you will have to take to put it into action. This is the same process of working toward your goals that we explored in Chapter 2. Planning the specific steps you will take is extremely important. Although thinking carefully about your problem is necessary, it is not enough if you hope to solve the problem. You have to *take action*, and planning specific steps is where you begin. In the sample problem, for example, imagine that one of the alternatives you have selected is “Find additional sources of income that will enable me to work part-time and go to school full-time.” The specific steps you would want to take might include the following:

1. Contact the financial aid office at the school to see what other forms of financial aid are available and what you have to do to apply for them.
2. Contact some of the local banks to see what sort of student loans are available.
3. Look for a higher-paying job so that you can earn more money without working additional hours.
4. Discuss the problem with students in similar circumstances in order to generate new ideas.

Identify the steps you would have to take in pursuing the alternative(s) you identified on page XXX.

Of course, plans do not implement themselves. Once you know what actions you have to take, you need to commit yourself to taking the necessary steps. This is where many people stumble in the problem-solving process, paralyzed by inertia or fear. Sometimes, to overcome these blocks and inhibitions, you need to reexamine your original acceptance of the problem, perhaps making use of some of the strategies you explored on page 118. Once you get started, the rewards of actively attacking your problem are often enough incentive to keep you focused and motivated.

---

## **STEP 5: HOW WELL IS THE SOLUTION WORKING?**

As you work toward reaching a reasonable and informed conclusion, you should not fall into the trap of thinking that there is only one “right” decision and that all is lost if you do not figure out what it is and carry it out. You should

remind yourself that any analysis of a problem situation, no matter how careful and systematic, is ultimately limited. You simply cannot anticipate or predict everything that is going to happen in the future. As a result, every decision you make is provisional in the sense that your ongoing experience will inform you if your decisions are working out or if they need to be changed and modified. As you saw in Chapter 1, this is precisely the attitude of the critical thinker—someone who is *receptive* to new ideas and experiences and *flexible* enough to change or modify beliefs based on new information. Critical thinking is not a compulsion to find the “right” answer or make the “correct” decision; it is an ongoing process of exploration and discovery.

### *Step 5A: What Is My Evaluation?*

In many cases the relative effectiveness of your efforts will be apparent. In other cases it will be helpful to pursue a more systematic evaluation along the lines suggested in the following strategies:

1. *Compare the results with the goals.* The essence of evaluation is comparing the results of your efforts with the initial goals you were trying to achieve. For example, the goals of the sample problem are embodied in the results you specified on page 121. Compare the anticipated results of the alternative(s) you selected. To what extent will your choice meet these goals? Are there goals that are not likely to be met by your alternative(s)? Which ones? Could they be addressed by other alternatives? Asking these and other questions will help you clarify the success of your efforts and provide a foundation for future decisions.
2. *Get other perspectives.* As you have seen throughout the problem-solving process, getting the opinions of others is a productive strategy at virtually every stage, and this is certainly true for evaluation. Other people can often provide perspectives that are both different and more objective than yours. Naturally, the evaluations of others are not always better or more accurate than your own, but even when they are not, reflecting on these different views usually deepens your understanding of the situation. It is not always easy to receive the evaluations of others, but open-mindedness toward outside opinions is a very valuable attitude to cultivate, for it will stimulate and guide you to produce your best efforts.

To receive specific, practical feedback from others, you need to ask specific, practical questions that will elicit this information. General questions (“What do you think of this?”) typically result in overly general, unhelpful

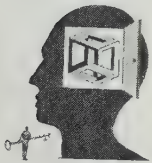


responses (“It sounds okay to me”). Be focused in soliciting feedback, and remember: You do have the right to ask people to be *constructive* in their comments, providing suggestions for improvement rather than flatly expressing what they think is wrong.

### *Step 5B: What Adjustments Are Necessary?*

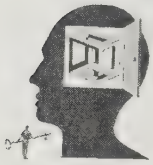
As a result of your review, you may discover that the alternative you selected is not feasible or is not leading to satisfactory results. For example, in the sample problem, you may find that it is impossible to find additional sources of income so that you can work part-time instead of full-time. In that case, you simply have to go back and review the other alternatives to identify another possible course of action. At other times you may find that the alternative you selected is working out fairly well but still requires some adjustments as you continue to work toward your desired outcomes. In fact, this is a typical situation that you should expect to occur. Even when things initially appear to be working reasonably well, an active thinker continues to ask questions such as “What might I have overlooked?” and “How could I have done this differently?” Of course, asking—and trying to answer—questions like these is even more essential if solutions are hard to come by (as they usually are in real-world problems) and if you are to retain the flexibility and optimism you will need to tackle a new option.

### THINKING ACTIVITY 3.2 *ANALYZING AN UNSOLVED PROBLEM*



Select a problem from your own life. It should be one that you are currently grappling with and have not yet been able to solve. After selecting the problem you want to work on, strengthen your *acceptance* of the problem by using one or more of the strategies described on page 118 and describing your efforts. Then analyze your problem using the problem-solving method described in this chapter. Discuss your problem with other class members to generate fresh perspectives and unusual alternatives that might not have occurred to you. Using your own paper, write your analysis in outline style, giving specific responses to the questions in each step of the problem-solving method. Although you might not reach a “guaranteed” solution to your problem, you should deepen your understanding of the problem and develop a concrete plan of action that will help you move in the right direction. Implement your plan of action and then monitor the results. ◀

### THINKING ACTIVITY 3.3 ANALYZING COLLEGE PROBLEMS



Analyze the following problems using the problem-solving approach presented in this chapter.

#### Problem 1: Background Information

The most important unsolved problem that exists for me is my inability to make that crucial decision of what to major in. I want to be secure with respect to both money and happiness when I make a career for myself, and I don't want to make a mistake in choosing a field of study. I want to make this decision before beginning the next semester so that I can start immediately in my career. I've been thinking about managerial studies. However, I often wonder if I have the capacity to make executive decisions when I can't even decide on what I want to do with my life.

#### Problem 2: Background Information

One of my problems is my difficulty in taking tests. It's not that I don't study. What happens is that when I get the test, I become nervous and my mind goes blank. For example, in my social science class, the teacher told the class on Tuesday that there would be a test on Thursday. That afternoon I went home and began studying for the test. By Thursday I knew most of the material, but when the test was handed out, I got nervous and my mind went blank. For a long time I just stared at the test, and I ended up failing it.

#### Problem 3: Background Information

One of the serious problems in my life is learning English as a second language. It is not so easy to learn a second language, especially when you live in an environment where only your native language is spoken. When I came to this country three years ago, I could speak almost no English. I have learned a lot, but my lack of fluency is getting in the way of my studies and my social relationships.

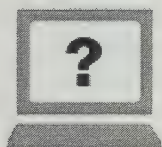
#### Problem 4: Background Information

This is my first year of college, and in general I'm enjoying it a great deal. The one disturbing thing I have encountered is the amount of drinking that students engage in when they socialize. Although I enjoy drinking in moderation, most students drink much more than "in moderation" at parties. They want to "get drunk," "lose control," "get wasted." And the parties aren't just on week-ends—they're every night of the week! The problem is that there is a lot of pressure for me to join in the drinking and partying. Most of the people I enjoy

being with are joining in, and I don't want to be left out of the social life of the college. But it's impossible to party so much and still keep up to date with my course work. And all that drinking certainly isn't good for me physically. But on the other hand, I don't want to be excluded from the social life, and when I try to explain that I don't enjoy heavy drinking, my friends make me feel immature and a little silly. What should I do? ◀

---

## LOOKING CRITICALLY @ TROUBLESHOOTING ON THE INTERNET



You're in the middle of fine-tuning a very important term paper, fixing the typos and streamlining the text, when poof!—your computer's mouse disappears from view. *Or* a message flashes on the screen telling you that there is insufficient memory to save your document after you have just spent four hours editing it. *Or* your monitor is turning funny colors and displaying flashing, wiggly lines, making it impossible to read. *Or* you're doing research at a major library via the Internet, and your network connection (usually a modem) cuts you off and won't allow you to redial. What do you do?

Don't panic; all is not lost. Help is on the way! And no, you do not have to cart your equipment to a repair store and pay a zillion dollars for someone to peek at the hard drive's insides or tweak some gadget. Depending upon the situation, you may have the solution right at your fingertips. First and most important, *THINK like a problem-solver before you ACT*. Analyze the situation: What exactly is the problem? Which piece of hardware or which software might be causing the difficulty? What are your alternatives for solving the problem? How can you test the various alternatives? If you can find the answers to your problems by yourself, while still at your computer, just think of the time and money you will save and the aggravation you will avoid. You will also be better able to anticipate how to prevent the problem from happening again.

Successful problem-solving—and troubleshooting—always begin with gathering information. Keep your manuals handy and refer to them often. For software questions, check the user's guide that comes with the original package or use the "Help" feature that is often right there on your screen. If your computer is still operable, and you have access to the Internet or an online service, you may be able to find ways to troubleshoot common problems. Many hardware and software manufacturers have established 1-800 help lines or Web sites with customer service departments and FAQ ("Frequently Asked Questions") message boards.

Newspapers and magazines that offer computer columns often let you search current and back issues online for articles that may pertain to your dilemma. Sometimes the authors will even answer you via email to help you out of a tough spot. And there are forums, chat groups, live conferences, bulletin or message boards, and newsgroups on the Internet—all being areas where you can correspond or start a round robin of questions and answers to solicit advice from professionals in the field as well as from fellow computer users. Today's newer computers often come with preinstalled "utility" programs that can detect problems and offer solutions through steps that you can handle yourself. Or you can purchase programs that act like computer "doctors" to help diagnose and repair problems. Look for and take advantage of these applications to help solve your puzzles.

What about the vanishing mouse? Sometimes you need to reboot your computer (turn it on and off), particularly when you are shifting between DOS-based and Windows-based programs, to refresh the settings. It's something of a mystery why this method works, but it may be the simplest way to fix an annoying glitch that occurs when mixing old programs with newer versions.

In addition, the customary advice for dealing with all electronic equipment that goes on the blink also applies to computers: *check the plugs!* The myriad of wires hooking up the printer, keyboard, monitor, joystick, mouse, hard drive, fax, and modem can become tangled, undone, or loosened just by feather dusting "back there." So before carting the equipment off to the store, securely fasten all the plugs and cords, turn the computer off, count to ten, and then turn it back on.

No, your computer is not aging gracefully when it tells you it's "Out of Memory." Instead, it could be telling you that it's running too many programs at once, and like people who juggle too many tasks at a time, it just may not be able to handle that many tasks at once. So the short-term "fix" is to shut down some of the applications and see if that helps; the long-range plan would be to see if your PC could be upgraded with more RAM (random access memory) or space on your hard drive. In the meantime, try saving your file to a floppy disk (if the file is small enough), *or*, if you're working in a computer lab, find out whether you can save the file on a different part of the network. And, by the way, the folks who run your computer lab and your fellow students are often great sources for help solving problems. You can also try deleting some unnecessary files or moving them elsewhere to make room for the one you need to keep now. And remember, if you are not already backing up the data you want to keep on a regular basis (also known as making emergency copies, often in a compressed format) learn how—and do it regularly.

Browsing the Internet can be fun, but it can also contribute to your computer's memory problems and cause your modem to cut you off. Those colorful Web pages temporarily load into your computer's upper memory and take up a



lot of space, so you may find yourself being disconnected from your modem and looking at a blank screen on a regular basis. Of course, being “punted” offline can also mean someone in your house has picked up an extension of your phone line and inadvertently cut you off. Maybe the person is trying to tell you that you’re spending too much time online!

Finally, what could be making your monitor freak out? Are you sure you’re using the right “driver” (the software that is used to run extensions like printers, external CD-ROM drives, and scanners)? First things first: check to ensure that the program running your system is the right one (now, where is that manual?). Before you start pricing new video cards (another internal “organ” of your computer), see if any of these possibilities apply: Your monitor might just be getting tired and old and wearing out from use. The circuit that your computer is plugged into might be shared with your refrigerator so that every time the self-defroster goes on, it creates a power blip that surges through your computer. Or perhaps your computer is too close to another current, like a cable TV line. Try moving your computer to another location in your room, plug it into a different socket on a different electrical line, and see if the rainbow effect on your screen happens at specific times or on certain days of the week. If all else fails, hook it up to someone else’s computer and see if it misbehaves there as well. If it is still psychedelic, it may be time for a visit to the computer shop.

Begin looking critically at troubleshooting by engaging in the following activity. Create a problem that you think you might be faced with as you use your computer (or perhaps your professor will hand out sample problems). How would you solve the problem? Think before you act: examine the situation you’ve created and write about both your situation and your solution. First, describe the problem as specifically as possible and identify the resources you can use to solve it. What are your alternatives for solving the problem? What are the advantages and disadvantages of each alternative? What do you think is the best solution? By developing the habit of approaching your computer problems in this way, you’ll soon find yourself naturally anticipating and troubleshooting unexpected difficulties you may encounter—in other words, you’ll be thinking critically about using your computer.

---

## SOLVING NONPERSONAL PROBLEMS

The problems we have analyzed up to this point have been “personal” problems in the sense that they represent individual challenges encountered by us as we live our lives. Problems are not only of a personal nature, however. We also face problems as members of a community, a society, and the world. As with

personal problems, we need to approach these kinds of problems in an organized and thoughtful way in order to explore the issues, develop a clear understanding, and decide on an informed plan of action. For example, racism and prejudice directed toward African Americans, Hispanics, Asians, Jews, homosexuals, and other minority groups seems to be on the rise at many college campuses. There has been an increase of overt racial incidents at colleges and universities during the past several years, a particularly disturbing situation given the lofty egalitarian ideals of higher education. Experts from different fields have offered a variety of explanations to account for this behavior. Describe why you believe these racial and ethnic incidents are occurring with increasing frequency.

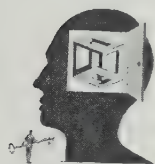
Making sense of a complex, challenging situation like this is not a simple process. Although the problem-solving method we have been using in this chapter is a powerful approach, its successful application depends on having sufficient information about the situation we are trying to solve. As a result, it is often necessary for us to research articles and other sources of information to develop informed opinions about the problem we are investigating.

The famous newspaperman H. L. Mencken once said, "To every complex question there is a simple answer—and it's wrong!" We have seen in this chapter that complex problems do not admit simple solutions, whether they concern personal problems in our lives or larger social problems like racial prejudice or world hunger. We have also seen, however, that by working through these complex problems thoughtfully and systematically, we can achieve a deeper understanding of their many interacting elements, as well as develop strategies for solving them.

Becoming an effective problem-solver does not merely involve applying a problem-solving method in a mechanical fashion any more than becoming a mature critical thinker involves mastering a set of thinking skills. Rather, solving problems, like thinking critically, reflects a total approach to making sense of experience. When we think like problem-solvers, we approach the world in a distinctive way. Instead of avoiding difficult problems, we have the courage to meet them head-on and the determination to work through them. Instead of acting impulsively or relying exclusively on the advice of others, we are able to make sense of complex problems in an organized way and develop practical solutions and initiatives.

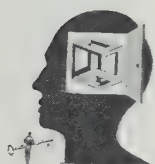
A sophisticated problem-solver employs all of the critical-thinking abilities that we have examined so far and those we will explore in the chapters ahead. And while we might agree with H. L. Mencken's evaluation of simple answers to complex questions, we might endorse a rephrased version: "To many complex questions there are complex answers—and these are worth pursuing!"

### THINKING ACTIVITY 3.4 ANALYZING SOCIAL PROBLEMS



Identify an important local, national, or international problem that needs to be solved. Locate two or more articles that provide background information and analysis of the problem. Using these articles as a resource, analyze the problem using the problem-solving method developed in this chapter. ◀

### THINKING PASSAGE YOUNG HATE



The final section of this chapter consists of an article dealing with a significant social problem in our lives today. "Young Hate," by David Shenk, examines the problem of intolerance on college campuses. This information provides a foundation from which we can construct a thoughtful analysis of this troubling problem and perhaps develop some productive solutions. After reading the article, identify and analyze the problem being discussed by using the problem-solving method developed in this chapter.

#### YOUNG HATE by David Shenk

*Death to gays.* Here is the relevant sequence of events: On Monday night Jerry Mattioli leads a candlelight vigil for lesbian and gay rights. *Gays are trash.* On Tuesday his name is in the school paper and he can hear whispers and feel more, colder stares than usual. On Wednesday morning a walking bridge in the middle of the Michigan State campus is found to be covered with violent epithets warning campus homosexuals to *be afraid, very afraid*, promising to *abolish faggots from existence*, and including messages specifically directed at Mattioli. Beginning Friday morning fifteen of the perpetrators, all known to Mattioli by name and face, are rounded up and quietly disciplined by the university. *Go home faggots.* On Friday afternoon Mattioli is asked by university officials to leave campus for the weekend, for his own safety. He does, and a few hours later receives a phone call from a friend who tells him that his dormitory room has been torched. MSU's second annual "Cross-Cultural Week" is over.

"Everything was ruined," Mattioli says. "What wasn't burned was ruined by smoke and heat and by the water. On Saturday I sat with the fire investigator all day, and we went through the room, literally ash by ash. . . . The answering machine had melted. The receiver of the telephone on the wall had stretched to about three feet long. That's how intense the heat was."

"Good news!" says Peter Jennings. A recent *Washington Post/ABC* News poll shows that integration is up and racial tension is down in America, as compared with eight years ago. Of course, in any trend there are fluctuations, exceptions. At the University of Massachusetts at Amherst, an estimated two thousand whites chase twenty blacks in a clash after a . . . World Series game, race riots break out in Miami . . . and in Virginia Beach . . .; and on college campuses across the country, our nation's young elite experience an entire decade's aberration from the poll's findings: incidents of ethnic, religious, and gender-related harassment surge throughout the [decade].

Greatest hits include Randy Bowman, a black student at the University of Texas, having to respectfully decline a request by two young men wearing Ronald Reagan masks and wielding a pistol to exit his eighth-floor dorm room through the window; homemade T-shirts, *Thank God for AIDS* and *Aryan by the Grace of God*, among others, worn proudly on campus; Jewish student centers shot at, stoned, and defaced at Memphis State, University of Kansas, Rutgers (*Six million, why not*), and elsewhere; the black chairperson of United Minorities Council at U Penn getting a dose of hi-tech hate via answering machine: *We're going to lynch you, nigger shit. We are going to lynch you.*

The big picture is less graphic, but just as dreadful: reports of campus harassment have increased as much as 400 percent since 1985. Dropout rates for black students in predominantly white colleges are as much as five times higher than white dropout rates at the same schools and black dropout rates at black schools. The Anti-Defamation League reports a sixfold increase in anti-Semitic episodes on campuses between 1985 and 1988. Meanwhile, Howard J. Ehrlich of the National Institute Against Prejudice and Violence reminds us that "up to 80 percent of harassed students don't report the harassment." Clearly, the barrage of news reports reveals only the tip of a thoroughly sour iceberg.

Colleges have responded to incidents of intolerance—and the subsequent demands of minority rights groups—with the mandatory ethnic culture classes and restrictions on verbal harassment. But what price tranquility? Libertarian and conservative student groups, faculty, and political advisors lash out over limitations on free speech and the improper embrace of liberal political agendas. "Progressive academic administrations," writes University of Pennsylvania professor Alan Charles Kors in the *Wall Street Journal*, "are determined to enlighten their morally benighted students and protect the community from political sin."

Kors and kind bristle at the language of compromise being attached to official university policy. The preamble to the University of Michigan's



new policy on discriminatory behavior reads, in part, "Because there is tension between freedom of speech, the right of individuals to be free from injury caused by discrimination, and the University's duty to protect the educational process . . . it may be necessary to have varying standards depending on the locus of regulated conduct." The policy tried to "strike a balance" by applying different sets of restrictions to academic centers, open areas, and living quarters, but in so doing, hit a wall. Before the policy could go into effect, it was struck down in a Michigan court as being too vague. At least a dozen schools in the process of formulating their own policies scurried in retreat as buoyant free-speech advocates went on the offensive. Tufts University president Jean Mayer voluntarily dismissed his school's "Freedom of Speech versus Freedom from Harassment" policy after a particularly inventive demonstration by late-night protesters, who used chalk, tape, and poster board to divide the campus into designated free speech, limited speech, and non-free speech zones. "We're not working for a right to offensive speech," says admitted chalker Andrew Zappia, co-editor of the conservative campus paper, *The Primary Source*. "This is about protecting free speech, in general, and allowing the community to set its own standards about what is appropriate. . . ."

"The purpose of the Tufts policy was to prosecute people for what the university described as 'gray area'—meaning unintentional—harassment." Zappia gives a hypothetical example: "I'm a Catholic living in a dorm, and I put up a poster in my room [consistent with my faith] saying that homosexuality is bad. If I have a gay roommate or one who doesn't agree with me, he could have me prosecuted, not because I hung it there to offend him, but because it's gray area harassment. . . . The policy was well intended, but it was dangerously vague. They used words like *stigmatizing, offensive, harassing*—words that are very difficult to define."

Detroit lawyer Walter B. Connolly, Jr., disagrees. He insists that it's quite proper for schools to act to protect the victims of discrimination as long as the restrictions stay out of the classroom. "Defamation, child pornography, fighting words, inappropriate comments on the radio—there are all sorts of areas where the First Amendment isn't the preeminent burning omnipotence in the sky. . . . Whenever you have competing interests of a federal statute [and] the Constitution, you end up balancing."

If you want to see a liberal who follows this issue flinch, whisper into his or her ear the name Shelby Steele. Liberals don't like Steele, an (African American) English professor at California's San Jose State; they try to dismiss him as having no professional experience in the study of racial discrimination. But he's heavily into the subject, and his analyses are both lucid and disturbing. Steele doesn't favor restrictions on speech,

largely because they don't deal with what he sees as the problem. "You don't gain very much by trying to legislate the problem away, curtailing everyone's rights in the process," he says. In a forum in which almost everyone roars against a shadowy, usually nameless contingent of racist thugs, Steele deviates, choosing instead to accuse the accusers. He blames not the racists, but the weak-kneed liberal administrators and power-hungry victims' advocates for the mess on campuses today.

"Racial tension on campus is the result more of racial equality than inequality," says Steele. "On campuses today, as throughout society, blacks enjoy equality under the law—a profound social advancement. . . . What has emerged in recent years . . . in a sense as a result of progress . . . is a *politics of difference*, a troubling, volatile politics in which each group justifies itself, its sense of worth and its pursuit of power, through difference alone." On nearly every campus, says Steele, groups representing blacks, Hispanics, Asians, gays, women, Jews, and any combinations therein solicit special resources. Asked for—often demanded, in intense demonstrations—are funds for African-American (Hispanic . . . ) cultural centers, separate (face it, segregated) housing, ethnic studies programs, and even individual academic incentives—at Penn State, minority students are given \$275 per semester if they earn a C average, twice that if they do better than 2.75.

These entitlements, however, do not just appear *deus ex machina*. Part two of Steele's thesis addresses what he calls the "capitulation" of campus presidents. To avoid feelings of guilt stemming from past discrimination against minority groups, Steele says, "[campus administrators have] tended to go along with whatever blacks put on the table, rather than work with them to assess their real needs. . . . Administrators would never give white students a theme house where they could be 'more comfortable with people of their own kind,' yet more and more universities are doing this for black students." Steele sees white frustration as the inevitable result.

"White students are not invited to the negotiating table from which they see blacks and others walk away with concessions," he says. "The presumption is that they do not deserve to be there, because they are white. So they can only be defensive, and the less mature among them will be aggressive."

Course, some folks see it another way. The students fighting for minority rights aren't wicked political corruptors, but champions of a cause far too long suppressed by the white male hegemony. Responsive

administrators are engaged not in capitulation, but in progress. And one shouldn't look for the cause of this mess on any campus, because he doesn't live on one. His address used to be the White House, but then he moved to 666 St. Cloud Road. Ronald Reagan, come on down.

*Dr. Manning Marble, University of Colorado:* "The shattering assault against the economic, social, and political status of the black American community as a whole [is symbolized by] the Reagan Administration in the 1980s. The Civil Rights Commission was gutted; affirmative action became a 'dead letter'; social welfare, health care, employment training, and educational loans were all severely reduced. This had a disproportionately more negative impact upon black youth."

The "perception is already widespread that the society at large is more permissive toward discriminatory attitudes and behaviors, and less committed to equal opportunity and affirmative action," concluded a 1988 conference at Northern Illinois University. John Wiener, writing in *The Nation*, attacks long-standing institutions of bigotry, asserting, for example, that "racism is endemic to the fraternity subculture," and praises the efforts of some schools to double the number of minority faculty and increase minority fellowships. On behalf of progressives across the land, Wiener writes off Shelby Steele as someone who is content to "blame the victim."

So the machine has melted, the phone has stretched to where it is useless. This is how intense the heat is. Liberals, who largely control the administration, faculty, and students' rights groups of leading academic institutions, have, with virtually no intensive intellectual debate, inculcated schools with their answers to the problem of bigotry. Conservatives, with a long history of insensitivity to minority concerns, have been all but shut out of the debate, and now want back in. Their intensive pursuit of the true nature of bigotry and the proper response to it—working to assess the "real needs" of campuses rather than simply bowing to pressure—deserves to be embraced by all concerned parties, and probably would have been by now but for two small items: (a) Reagan, their fearless leader, clearly *was* insensitive to ethnic/feminist concerns (even Steele agrees with this); and (b) some of the more coherent conservative pundits *still* show a blatant apathy to the problems of bigotry in this country. This has been sufficient ammunition for liberals who are continually looking for an excuse to keep conservatives out of the dialogue. So now we have clashes rather than debates: on how much one can say, on how much one should have to hear. Two negatives: one side wants to crack down on expression, the other on awareness. The machine has melted, and it's going

to take some consensus to build a new one. Intellectual provincialism will have to end before young hate ever will.

### **A Month in the Life of Campus Bigotry**

*April 1.*

Vandals spray-paint "Jewhaters will pay" and other slogans on the office walls of *The Michigan Daily* (University of Michigan) in response to editorials condemning Israel for policies regarding the Palestinians. Pro-Israeli and pro-Palestinian shanties [are] defaced; one is burned.

U of M: Fliers circulated over the weekend announce "White Pride Month."

Southern Connecticut State University reportedly suspends five fraternity officers after racial brawl.

*April 2.*

Several gay men of the University of Connecticut are taunted by two students, who yell "faggot" at them.

*April 3.*

The University of Michigan faculty meet to discuss a proposal to require students to take a course on ethnicity and racism.

*April 4.*

Students at the University of California at Santa Barbara suspend hunger strike after university agrees to negotiate on demands for minority faculty hiring and the changed status of certain required courses.

*April 5.*

The NCAA releases results of survey on black student athletes, reporting that 51 percent of black football and basketball players at predominantly white schools express feelings of being different; 51 percent report feelings of racial isolation; 33 percent report having experienced at least six incidents of individual racial discrimination.

The *New York Times* prints three op-ed pieces by students on the subject of racial tension on campus.

Charges filed against a former student of Penn State for racial harassment of a black woman.

*April 6.*

University of Michigan: Hundreds of law students wear arm bands, boycott classes to protest lack of women and minority professors.

Michigan State University announces broad plan for increasing the number of minority students, faculty, and staff; the appointment of a



senior advisor for minority affairs; and the expansion of multicultural conferences. "It's not our responsibility just to mirror society or respond to mandates," President John DiBiaggio tells reporters, "but to set the tone."

*April 7.*

Wayne State University (Detroit, Michigan) student newspaper runs retraction of cartoon considered offensive following protest earlier in the week.

Controversy develops at the State University of New York at Stony Brook, where a white woman charges a popular black basketball player with rape. Player denies charges. Charges are dismissed. Protests of racism and sexual assault commence.

*April 12.*

Twelve-day sit-in begins at Wayne State University (Michigan) over conditions for black students on campus.

*April 14.*

Racial brawl at Arizona State.

*April 20.*

Demonstrations at several universities across the country (Harvard, Duke, Wayne State, Wooster College, Penn State, etc.) for improvements in black student life.

Separate escort service for blacks started at Penn State out of distrust of the regular service.

*April 21.*

200-student sit-in ends at Arizona State University when administrators agree to all thirteen demands.

*April 24.*

Proposed tuition increase at City Universities of New York turns into racial controversy.

*April 25.*

After eighteen months in office, Robert Collin, Florida Atlantic University's first black dean, reveals he has filed a federal discrimination complaint against the school.

Two leaders of Columbia University's Gay and Lesbian Alliance receive death threat[s]. "Dear Jeff, I will kill you butt fucking faggots. Death to COLA!"

*April 26.*

A black Smith College (Massachusetts) student finds note slipped under door, “. . . African monkey do you want some bananas? Go back to the jungle . . .”

“I don’t think we should have to constantly relive our ancestors’ mistakes,” a white student at the University of North Carolina at Greensboro tells a reporter. “I didn’t oppress anybody. Blacks are now equal. You don’t see any racial problems anymore.”

White Student Union is reported to have been formed at Temple University in Philadelphia, “City of Brotherly Love.”

*April 28.*

Note found in Brown University (Rhode Island) dorm. “Once upon a time, Brown was a place where a white man could go to class without having to look at little black faces, or little yellow faces or little brown faces, except when he went to take his meals. Things have been going downhill since the kitchen help moved into the classroom. Keep white supremacy [sic] alive!!! Join the Brown chapter of the KKK today.” Note is part of series that began in the middle of the month with “Die Homos.” University officials beef up security, hold forum.

*April 29.*

Controversy reported over proposed ban on verbal harassment at Arizona State.

*April 30.*

Anti-apartheid shanty at University of Maryland, Baltimore County, is defaced. Signs read “Apartheid now,” and “Trump Plaza.”

University of California at Berkeley: Resolution is passed requiring an ethnic studies course for all students.

University of Connecticut: Code is revised to provide specific penalties for acts of racial intolerance. ■

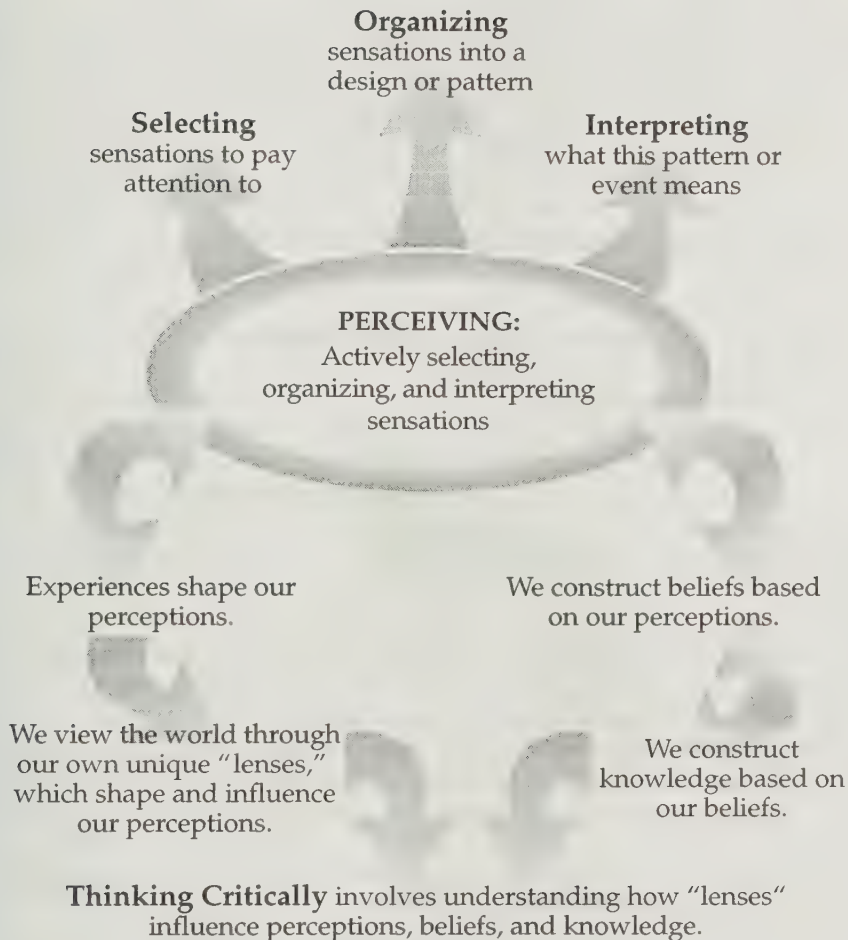
1. Given the following situation use the Problem Solving Model from the book to outline each step of how you would handle this problem. *"Your significant other has been very moody lately. S/he has been very argumentative and secretive. S/he goes out for a few hours at a time without telling you and upon his/her return seems to be in better spirits. You have found some things that suggest controlled substance on his/her possession."*

What do you do to address your concerns and the problem at hand?





# CHAPTER 4 PERCEIVING



THINKING IS THE WAY you make sense of the world. By thinking in an active, purposeful, and organized way, you are able to solve problems, work toward your goals, analyze issues, and make decisions. Your experience of the world comes to you by means of your *senses*: sight, hearing, smell, touch, and taste. These senses are your bridges to the world, making you aware of what occurs outside you, and the process of becoming aware of your world through your senses is known as *perceiving*.

In this chapter you will explore the way your perceiving process operates and how it relates to your ability to think effectively. In particular, you will discover the way you shape your personal experience by actively selecting, organizing, and interpreting the sensations provided by the senses. In a way, each of us views the world through a pair of individual “eyeglasses” or “contact lenses” that reflect our past experiences and unique personalities. As a critical thinker, you want to become aware of the nature of your own “lenses” to help eliminate any bias or distortion they may be causing. You also want to become aware of the “lenses” of others so that you can better understand why they view things the way they do.

At almost every waking moment of your life, your senses are being bombarded by a tremendous number of stimuli: images to see, noises to hear, odors to smell, textures to feel, and flavors to taste. The experience of all these sensations happening at once creates what the nineteenth-century American philosopher William James called “a bloomin’ buzzin’ confusion.” Yet for us, the world usually seems much more orderly and understandable. Why is this so?

In the first place, your sense equipment can receive sensations only within certain limited ranges. For example, there are many sounds and smells that animals can detect but you cannot because their sense organs have broader ranges in these areas than yours do.

A second reason you can handle this sensory bombardment is that from the stimulation available, you *select* only a small amount on which to focus your attention. To demonstrate this, try the following exercise. Concentrate on what you can *see*, ignoring your other senses for the moment. Focus on sensations that you were not previously aware of and then answer the first question. Concentrate on each of your other senses in turn, following the same procedure.

1. What can you *see*? (For example, the shape of the letters on the page, the design of the clothing on your arm).
2. What can you *hear*? (For example, the hum of the air circulator, the rustling of a page).
3. What can you *feel*? (For example, the pressure of the clothes against your skin, the texture of the page on your fingers).

4. What can you *smell*? (For example, the perfume or cologne someone is wearing, the odor of stale cigarette smoke).
5. What can you *taste*? (For example, the aftereffects of your last meal).

Compare your responses with those of the other students in the class. Do your classmates perceive sensations that differ from the ones you perceived? If so, how do you explain these differences?

By practicing this simple exercise, it should be clear that for every sensation that you focus your attention on there are countless other sensations that you are simply ignoring. If you were aware of *everything* that is happening at every moment, you would be completely overwhelmed. By selecting certain sensations, you are able to make sense of your world in a relatively orderly way. The activity of using your senses to experience and make sense of your world is known as *perceiving*.

**Perceiving** Actively selecting, organizing, and interpreting what is experienced by your senses

## ACTIVELY SELECTING, ORGANIZING, AND INTERPRETING SENSATIONS

It is tempting to think that your senses simply record what is happening out in the world as if you were a human camera or tape recorder. You are not, however, a passive receiver of information, a “container” into which sense experience is poured. Instead, you are an *active participant* who is always trying to understand the sensations you are encountering. As you perceive your world, your experience is the result of combining the sensations you are having with the way you understand these sensations. For example, examine the following collection of markings. What do you see?



If all you see is a collection of black spots, try looking at the group sideways. After a while, you will probably perceive a familiar animal.

From this example you can see that when you perceive the world, you are doing more than simply recording what your senses experience. Besides experiencing sensations, you are also *actively making sense* of these sensations. That is why this collection of black spots suddenly became the figure of an animal—because you were able actively to organize these spots into a pattern you recognized. Or think about the times you were able to look up at the white, billowy clouds in the sky and see different figures and designs. The figures you were perceiving were not actually in the clouds but were the result of your giving a meaningful form to the shapes and colors you were experiencing.

The same is true for virtually everything you experience. Your perception of the world results from combining the information provided by your senses with the way you actively make sense of this information. And since making sense of information is what you are doing when you are thinking, you can see that perceiving your world involves using your mind in an active way. Of course, you are usually not aware that you are using your mind to interpret the sensations you are experiencing. You simply see the animal or the figures in the clouds as if they were really there.

When you actively perceive the sensations you are experiencing, you are usually engaged in three distinct activities:

1. *Selecting* certain sensations to pay attention to
2. *Organizing* these sensations into a design or pattern
3. *Interpreting* what this design or pattern means to you

In the case of the figure on page 151, you were able to perceive an animal because you *selected* certain of the markings to concentrate on, *organized* these markings into a pattern, and *interpreted* this pattern as representing a familiar animal.

Of course, when you perceive, these three operations of selecting, organizing, and interpreting are usually performed quickly, automatically, and often simultaneously. Also, you are normally unaware that you are performing these operations because they are so rapid and automatic. This chapter is designed to help you slow down this normally automatic process of perceiving so that you can understand how the process works.

Let's explore more examples that illustrate how you actively select, organize, and interpret your perceptions of the world. Carefully examine the figure on page 153.





Do you see both the young woman and the old woman? If you do, try switching back and forth between the two images. As you switch back and forth, notice how for each image you are:

- *Selecting* certain lines, shapes, and shadings on which to focus your attention
- *Organizing* these lines, shapes, and shadings into different patterns
- *Interpreting* these patterns as representing things that you are able to recognize—a hat, a nose, a chin

Another way for you to become aware of your active participation in perceiving your world is to consider how you see objects. Examine the illustration that follows. Do you perceive different-sized people or the same-sized people at different distances?



When you see someone who is far away, you usually do not perceive a tiny person. Instead, you perceive a normal-sized person who is far away from you. Your experience in the world has enabled you to discover that the farther things are from you, the smaller they look. The moon in the night sky appears about the size of a quarter, yet you perceive it as being considerably larger. As you look down a long stretch of railroad tracks or gaze up at a tall building, the boundary lines seem to come together. Even though these images are what your eyes “see,” however, you do not usually perceive the tracks meeting or the building coming to a point. Instead, your mind actively organizes and interprets a world composed of constant shapes and sizes, even though the images you actually see usually vary, depending on how far you are from them and the angle from which you are looking at them.

Examine carefully the engraving pictured on page 155 entitled “Satire on False Perspective,” completed by William Hogarth in 1754. In this engraving, the artist has changed many of the clues you use to perceive a world of constant shapes and sizes, thus creating some unusual effects. By analyzing how the artist has created these unusual perspectives, you gain insight into the way your mind actively takes fragmentary information and transforms it into the predictable, three-dimensional world that is so familiar to you.

So far, we have been exploring how your mind actively participates in the way you perceive the world. By combining the sensations you are receiving with the way your mind selects, organizes, and interprets these sensations, you perceive a world of things that is stable and familiar, a world that usually makes sense to you.

The process of perceiving takes place at a variety of different levels. At the most basic level, the concept of “perceiving” refers to the selection, organization, and interpretation of sensations: for example, being able to perceive the various objects in your experience, like a basketball. However, you also perceive larger patterns of meaning at more complex levels, as in watching the action of a group of people engaged in a basketball game. Although these are very different contexts, both engage you in the process of actively selecting, organizing, and interpreting what is experienced by your senses—in other words, “perceiving.”

### *People's Perceptions Differ*

Your *active* participation in perceiving your world is something you are not usually aware of. You normally assume that what you are perceiving is what is actually taking place. Only when you find that your perception of the same event differs from the perceptions of others are you forced to examine the



*A PICTURE, A DESIGN, WITHOUT THE KNOWLEDGE OF PERSPECTIVE.*  
*After an engraving on the frontispiece.*

All rights reserved. The Metropolitan Museum of Art. Gift of Sarah Lazarus, 1891. (91.1.33)

manner in which you are selecting, organizing, and interpreting the events in your world. For example, consider the contrasting perceptions of the various characters in the cartoon on page 156. How do you think each individual arrived at his or her (or its) perception?

## THINKING ACTIVITY 4.1 ANALYZING PERCEPTIONS



Carefully examine the picture of the boy sitting at the desk on page 157. What do you think is happening in this picture?

1. Describe as specifically as possible what you perceive is taking place in the picture.
2. Describe what you think will happen next.

## THE INVESTIGATION



© John Jonik. Reproduced with permission. This cartoon first appeared in *Psychology Today*, February 1984.

3. Identify the details of the picture that led you to your perceptions.
4. Compare your perceptions with the perceptions of other students in the class.  
List several perceptions that differ from yours. ◀

In most cases, people in a group will have a variety of perceptions about what is taking place in the picture in Thinking Activity 4.1. Some will see the boy as frustrated because the work is too difficult. Others will see him concentrating on what has to be done. Still others may see him as annoyed because he is being forced to do something he does not want to do. In each case, the perception depends on how the person is actively using his or her mind to organize and





interpret what is taking place. Since the situation pictured is by its nature somewhat puzzling, different people perceive it in different ways.

Thinking Activity 4.2 reveals another example of how people's perceptions can differ.

### THINKING ACTIVITY 4.2 *ANALYZING PERCEPTIONS*

Closely examine the photograph on page 158.



1. Describe as specifically as possible what you think is taking place in the photograph.
2. Now describe what you think will happen next.
3. Identify the details of the picture that led you to your perceptions.
4. Compare your perceptions with the perceptions of other students in the class. List several perceptions that differ from yours. ◀

### *Viewing the World Through "Lenses"*

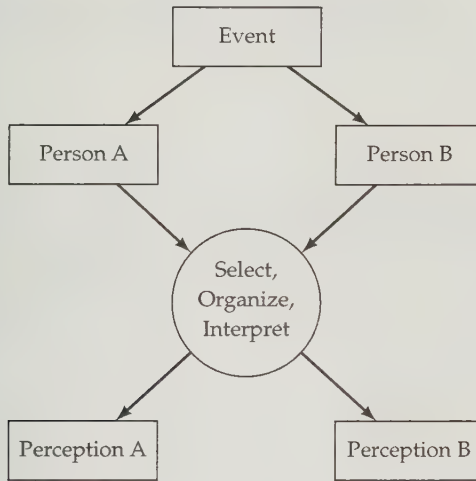
To understand how various people can be exposed to the same stimuli or events and yet have different perceptions, it helps to imagine that each of us views the



world through our own pair of “contact lenses.” Of course, we are not usually aware of the lenses we are wearing. Instead, our lenses act as *filters* that select and shape what we perceive without our realizing it.

This image of “lenses” helps explain why people can be exposed to the same stimuli or events and yet perceive different things. This happens because people are wearing *different lenses*, which influence what they are perceiving. For example, in “The Investigation” on page 156, each witness is giving what he or she (or it!) believes is an accurate description of the man in the center, unaware that their descriptions are being influenced by who they are and the way that they see things. When members of your class had different perceptions of the boy at the desk in Thinking Activity 4.1 and of the photograph in Thinking Activity 4.2, their different perceptions were the result of the different lenses through which each views the world.

To understand the way people perceive the world, you have to understand their individual lenses, which influence how they actively select, organize, and interpret the events in their experience. A diagram of the process might look like this:



Consider the following pairs of statements. In each of these cases, both people are being exposed to the same basic *stimulus* or event, yet each has a totally different *perception* of the experience. Explain how you think the various perceptions might have developed.

1. a. That chili was much too spicy to eat.  
*Explanation:*
  - b. That chili needed more hot peppers and chili powder to spice it up a little.  
*Explanation:*
2. a. People who wear lots of makeup and jewelry are very sophisticated.  
*Explanation:*
  - b. People who wear lots of makeup and jewelry are overdressed.  
*Explanation:*
3. a. The music that young people enjoy listening to is a very creative cultural expression.  
*Explanation:*
  - b. The music that young people enjoy listening to is obnoxious noise.  
*Explanation:*

To become an effective critical thinker, you have to become aware of the lenses that you—and others—are wearing. These lenses aid you in actively selecting, organizing, and interpreting the sensations in your experience. If you are unaware of the nature of your own lenses, you can often mistake your own

perceptions for objective truth without bothering to examine either the facts or others' perceptions on a given issue.

### *Selecting Perceptions*

We spend much of the time experiencing the world in a very general way, unaware of many of the details of the events that are taking place. For example, try to draw a picture of the face of a push-button phone, complete with numbers and letters. Then compare your drawing with an actual phone. Did you have any difficulty? Why? We also tend to select perceptions about subjects that have been called to our attention for some reason. For instance, at the age of three, my daughter suddenly became aware of beards. Upon entering a subway car, she would ask in a penetrating voice, "Any beards here?" and then would proceed to count them out loud. In doing this, she naturally focused my attention—as well as the attention of many of the other passengers—on beards.

As another aspect of our "perceiving" lenses, we tend to notice what we need, desire, or find of interest. When we go shopping, we focus on the items we are looking for. Walking down the street, we tend to notice certain kinds of people or events while completely ignoring others. Even while watching a movie or reading a book, we tend to concentrate on and remember the elements we find of interest. Another person can perform *exactly* the same actions—shop at the same store, walk down the same street with you, read the same book, or go to the same movie—and yet see and remember entirely different things. In other words, what you see and do not see depends largely on your interests, needs, and desires.

The way you are feeling—your mood or emotional state—can also affect the perceptions you select. For example, think back on the times when you have felt cranky, perhaps because you did not get enough sleep or were under pressure, and recall how you behaved. When we are in bad moods, we often seem ready to focus our attention on every potential insult or criticism made by others—and are ready to respond the same way.

Although we tend to focus on what is familiar to us, we are normally not aware that we are doing so. In fact, we often take for granted what is familiar to us—the taste of chili or eggs, the street that we live on, our family or friends—and normally do not think about our perception of it. But when something happens that makes the familiar seem strange and unfamiliar, we become aware of our perceptions and start to evaluate them.

To sum up, you actively select your perceptions based on what has been called to your attention, your needs or interests, your mood or feelings, and



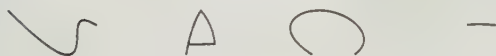
what seems familiar or unfamiliar. The way you select your perceptions is an important factor in shaping the lenses through which you view the world.

## Organizing Perceptions

Not only do you actively *select* certain perceptions, you also actively *organize* these perceptions into meaningful relationships and patterns. Consider the following series of lines:



Did you perceive them as individual lines or did you group them into pairs? We seem naturally to try to organize our perceptions to create order and meaning. Consider the items pictured next and try to organize them into a pattern that is familiar to you:



As you perceive the world, you naturally try to order and organize what you are experiencing into patterns and relationships that make sense to you. And when you are able to do so, the completed whole means more to you than the sum of the individual parts. You are continually organizing your world in this way at virtually every waking moment.

We do not live in a world of isolated sounds, patches of color, random odors, and individual textures. Instead, we live in a world of objects and people, language and music—a world in which all these individual stimuli are woven together. We are able to perceive this world of complex experiences because we are able to organize the individual stimuli we are receiving into relationships that have meaning for us.

The way you organize your experience is an important part of the lenses through which you perceive the world. You are able to perceive objects, human expressions, and potential human action because of your ability to organize the lines, shapes, and shadings into meaningful patterns and complex relationships.

### *Interpreting Perceptions*

Besides selecting and organizing your perceptions, you also actively *interpret* what you perceive. When you interpret, you are figuring out what something means. One of the elements that influences your interpretations of what you are perceiving is the *context*, or overall situation, within which the perception is occurring. For example, imagine that you see a man running down the street. Your interpretation of his action will depend on the specific context. For example, is there a bus waiting at the corner? Is a police officer running behind him? Is he wearing a jogging suit?

You are continually trying to interpret what you perceive, whether it is a design, someone's behavior, or a social situation. Like the example of someone running down the street, many of the perceptions you experience can be interpreted in more than one way. When a situation has more than one possible interpretation, you say that it is *ambiguous*. The more ambiguous a situation is, the greater the number of possible meanings or interpretations it has.

Think again about the pictures you examined in Thinking Activities 4.1 and 4.2. In each instance, your description of what was happening—and what was about to happen—was based on your interpretation of the situation. Other members of the class may have given different descriptions of what was occurring because they interpreted the situation differently. Since these two pictures are by their nature puzzling and ambiguous, no one interpretation is necessarily more correct than another. Instead, each interpretation simply reveals the lenses through which this person views the world. Of course, you may feel that some interpretations make more sense than others, based on the details and the relationships that you perceive in the situation.

Your perceptions reveal the lenses through which you are viewing the event. Watching your team play baseball, for example, you may really believe that the opposing runner was “out by a mile”—even though the replay may show otherwise. Or imagine that you are giving a speech to the class and that you are being evaluated by two people—someone who likes you and someone who does not. Do you believe that different perceptions of your performance may result?

Similarly, the way you are feeling can influence your interpretations of what you are experiencing. When you feel happy and optimistic, the world often seems friendly and the future full of possibilities, and you interpret the problems you encounter as challenges to be overcome. On the other hand, when you are depressed or unhappy, you may perceive your world entirely differently. The future can appear full of problems that are trying to overwhelm you. In both cases the outer circumstances may be very similar; it is your own interpretation of the world through your lenses that varies so completely.

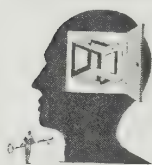
Your perceptions of the world are dramatically influenced by your past experiences: the way you were brought up, the relationships you have had, and the training and education you have undergone. Take the case of two people who are watching a football game. One person, who has very little understanding of football, sees merely a bunch of grown men hitting each other for no apparent reason. The other person, who loves football, sees complex play patterns, daring coaching strategies, effective blocking and tackling techniques, and zone defenses with “seams” that the receivers are trying to “split.” Both have their eyes focused on the same event, but they are perceiving two entirely different situations. Their perceptions differ because each person is actively selecting, organizing, and interpreting the available stimuli in different ways. The same is true of any situation in which you are perceiving something about which you have special knowledge or expertise. The following are examples:

- A builder examining the construction of a new house
- A music lover attending a concert
- A naturalist experiencing the outdoors
- A cook tasting a dish just prepared
- A lawyer examining a contract
- An art lover visiting a museum

Think about a special area of interest or expertise that you have and how your perceptions of that area differ from those who don't share your knowledge. Ask other class members about their areas of expertise. Notice how their perceptions of that area differ from your own because of their greater knowledge and experience.

In all these cases, the perceptions of the knowledgeable person differ substantially from the perceptions of a person who lacks knowledge of that area. Of course, you do not have to be an expert to have more fully developed perceptions. It is a matter of degree. In general, the more understanding you have of a particular area, the more detailed and complete your perceptions can be of all matters related to it.

### THINKING ACTIVITY 4.3 ANALYZING DIFFERENT ACCOUNTS OF THE ASSASSINATION OF MALCOLM X



Let's examine a situation in which a number of different people had somewhat different perceptions about an event they were describing. The second chapter of this book contains a passage by Malcolm X (page 77) written when he was just beginning his life's work. A few years later, this work came to a tragic end with his assassination at a meeting in Harlem. The following are five different accounts of what took place on that day. As you read through the various accounts, pay particular attention to the different perceptions each one presents of this event. After you have finished reading the accounts, analyze some of the differences in these perceptions by answering the questions that follow.

#### FIVE ACCOUNTS OF THE ASSASSINATION OF MALCOLM X

##### *The New York Times* (February 22, 1965)

Malcolm X, the 39-year-old leader of a militant Black Nationalist movement, was shot to death yesterday afternoon at a rally of his followers in a ballroom in Washington Heights. The bearded Negro extremist had said only a few words of greeting when a fusillade rang out. The bullets knocked him over backwards.

A 22-year-old Negro, Thomas Hagan, was charged with the killing. The police rescued him from the ballroom crowd after he had been shot and beaten.

Pandemonium broke out among the 400 Negroes in the Audubon Ballroom at 160th Street and Broadway. As men, women and children ducked under tables and flattened themselves on the floor, more shots were fired. The police said seven bullets struck Malcolm. Three other Negroes were shot. Witnesses reported that as many as 30 shots had been fired. About two hours later the police said the shooting had apparently been a result of a feud between followers of Malcolm and members of the extremist group he broke with last year, the Black Muslims. . . .

##### *Life* (March 5, 1965)

His life oozing out through a half dozen or more gunshot wounds in his chest, Malcolm X, once the shrillest voice of black supremacy, lay dying on the stage of a Manhattan auditorium. Moments before, he had stepped up to the lectern and 400 of the faithful had settled down expectantly to hear the sort of speech for which he was famous—flaying the hated white man. Then a scuffle broke out in the hall and Malcolm's bodyguards bolted from his side to break it up—only to discover that they had been faked



out. At least two men with pistols rose from the audience and pumped bullets into the speaker, while a third cut loose at close range with both barrels of a sawed-off shotgun. In the confusion the pistol man got away. The shotgunner lunged through the crowd and out the door, but not before the guards came to their wits and shot him in the leg. Outside he was swiftly overtaken by other supporters of Malcolm and very likely would have been stomped to death if the police hadn't saved him. Most shocking of all to the residents of Harlem was the fact that Malcolm had been killed not by "whitey" but by members of his own race.

***The New York Post (February 22, 1965)***

They came early to the Audubon Ballroom, perhaps drawn by the expectation that Malcolm X would name the men who firebombed his home last Sunday. . . . I sat at the left in the 12th row and, as we waited, the man next to me spoke of Malcolm and his followers: "Malcolm is our only hope. You can depend on him to tell it like it is and to give Whitey hell." . . .

There was a prolonged ovation as Malcolm walked to the rostrum. Malcolm looked up and said, "A salaam aleikum (Peace be unto you)," and the audience replied, "We aleikum salaam (And unto you, peace)."

Bespectacled and dapper in a dark suit, sandy hair glinting in the light, Malcolm said: "Brothers and sisters . . ." He was interrupted by two men in the center of the ballroom, who rose and, arguing with each other, moved forward. Then there was a scuffle at the back of the room. I heard Malcolm X say his last words: "Now, brothers, break it up," he said softly. "Be cool, be calm."

Then all hell broke loose. There was a muffled sound of shots and Malcolm, blood on his face and chest, fell limply back over the chairs behind him. The two men who had approached him ran to the exit on my side of the room, shooting wildly behind them as they ran. I heard people screaming, "Don't let them kill him." "Kill those bastards." At an exit I saw some of Malcolm's men beating with all their strength on two men. I saw a half dozen of Malcolm's followers bending over his inert body on the stage. Their clothes were stained with their leader's blood.

Four policemen took the stretcher and carried Malcolm through the crowd and some of the women came out of their shock and one said: "I hope he doesn't die, but I don't think he's going to make it."

***Associated Press (February 22, 1965)***

A week after being bombed out of his Queens home, Black Nationalist leader Malcolm X was shot to death shortly after 3 (P.M.) yesterday at a Washington Heights rally of 400 of his devoted followers. Early today,

police brass ordered a homicide charge placed against a 22-year-old man they rescued from a savage beating by Malcolm X supporters after the shooting. The suspect, Thomas Hagan, had been shot in the left leg by one of Malcolm's bodyguards as, police said, Hagan and another assassin fled when pandemonium erupted. Two other men were wounded in the wild burst of firing from at least three weapons. The firearms were a .38, a .45 automatic and a sawed-off shotgun. Hagan allegedly shot Malcolm X with the shotgun, a double-barrelled sawed-off weapon on which the stock also had been shortened, possibly to facilitate concealment. Cops charged Reuben Frances, of 871 E. 179th St., Bronx, with felonious assault in the shooting of Hagan, and with Sullivan Law violation—possession of the .45. Police recovered the shotgun and the .45.

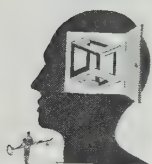
### ***The Amsterdam News* (February 27, 1965)**

"We interrupt this program to bring you a special newscast . . .," the announcer said as the Sunday afternoon movie on the TV set was halted temporarily. "Malcolm X was shot four times while addressing a crowd at the Audubon Ballroom on 166th Street." "Oh no!" That was my first reaction to the shocking event that followed one week after the slender, articulate leader of the Afro-American Unity was routed from his East Elmhurst home by a bomb explosion. Minutes later we alighted from a cab at the corner of Broadway and 166th St. just a short 15 blocks from where I live on Broadway. About 200 men and women, neatly dressed, were milling around, some with expressions of awe and disbelief. Others were in small clusters talking loudly and with deep emotion in their voices. Mostly they were screaming for vengeance. One woman, small, dressed in a light gray coat and her eyes flaming with indignation, argued with a cop at the St. Nicholas corner of the block. "This is not the end of it. What they were going to do to the Statue of Liberty will be small in comparison. We black people are tired of being shoved around." Standing across the street near the memorial park one of Malcolm's close associates commented: "It's a shame." Later he added that "if it's war they want, they'll get it." He would not say whether Elijah Muhammed's followers had anything to do with the assassination. About 3:30 p.m. Malcolm X's wife, Betty, was escorted by three men and a woman from the Columbia Presbyterian Hospital. Tears streamed down her face. She was screaming, "They killed him!" Malcolm X had no last words. . . . The bombing and burning of the No. 7 Mosque early Tuesday morning was the first blow by those who are seeking revenge for the cold-blooded murder of a man who at 39 might have grown to the stature of respectable leadership. ■

### Questions for Analysis

1. What details of the events has each writer *selected* to focus on?
2. How has each writer *organized* the details that have been selected? Remember that most news organizations present what they consider the most important information first and the least important information last.
3. How does each writer *interpret* Malcolm X, his followers, the gunmen, and the significance of the assassination?
4. How has each author used *language* to express his/her perspective and to influence the thinking of the reader? ◀

### THINKING ACTIVITY 4.4 ANALYZING MULTIPLE PERSPECTIVES



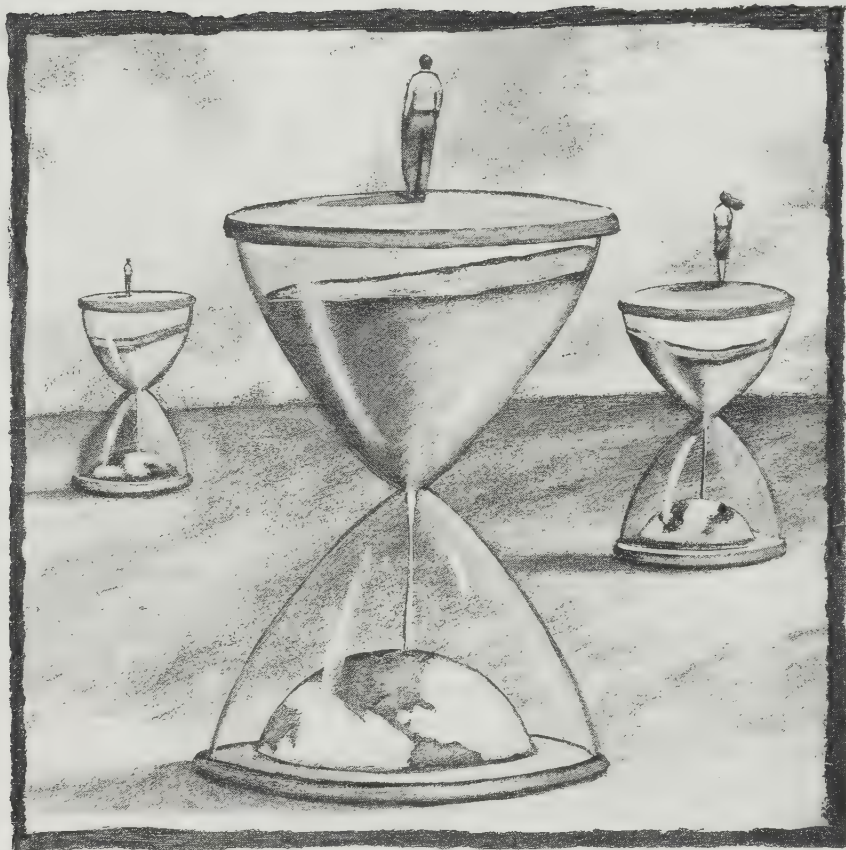
Locate three different newspaper or magazine accounts of an important event—a court decision, a crime, and a political demonstration are possible topics. Analyze the perceptual “lenses” of each of the writers by answering the questions in Thinking Activity 4.3. ◀

## EXPERIENCES SHAPE YOUR PERCEPTIONS

Your ways of viewing the world are developed over a long period of time through the experiences you have and your thinking about these experiences. As you think critically about your perceptions, you learn more from your experiences and about how you make sense of the world. Your perceptions may be strengthened by this understanding, or they may be changed by this understanding. For example, read the following student passage and consider the way her experiences—and her reflection on these experiences—contributed to shaping her perspective on the world.

### Acquired Knowledge

When news of the Acquired Immune Deficiency Syndrome first began to spread, it was just another one of those issues on the news that I felt did not really concern me. Along with cancer, leukemia, and kidney failure, I knew



*Your world and your perception of it are created by your ongoing experiences and your reflections on these events.*

these diseases ran rampant across the country, but they didn't affect me.

Once the AIDS crisis became a prevalent problem in society, I began to take a little notice of it, but my interest only extended as far as taking precautions to insure that I would not contract the disease. Sure, I felt sorry for all the people who were dying from it, but again, it was not my problem.



My father was an intravenous drug user for as long as I can remember. This was a fact of life when I was growing up. I knew that what he was doing was wrong, and that eventually he would die from it, but I also knew that he would never change.

On July 27th, my father died. An autopsy showed his cause of death as pneumonia and tuberculosis, seemingly natural causes. However, I was later informed that these were two very common symptoms related to carriers of the HIV virus. My father's years of drug abuse had finally caught up with him. He had died from AIDS.

My father's death changed my life. Prior to that, I had always felt that as long as a situation did not directly affect me, it was really no concern of mine. I felt that somewhere, someone would take care of it. Having a crisis strike so close to me made me wake up to reality. Suddenly I became acutely aware of all the things that are wrong in the world. I began to see the problems of AIDS, famine, homelessness, unemployment, and others from a personal point of view, and I began to feel that I had an obligation to join the crusade to do something about these problems.

I organized a youth coalition called UPLIFT INC. In this group, we meet and talk about the problems in society, as well as the everyday problems that any of our members may have in their lives. We organize shows (talent shows, fashion shows) and give a large portion of our proceeds to the American Foundation for AIDS Research, the Coalition for the Homeless, and many other worthy organizations.

Now I feel that I am doing my duty as a human being by trying to help those who are less fortunate than myself. My father's death gave me insight into my own mortality. Now I know that life is too short not to only try to enjoy it, but to really achieve something worthwhile out of it. Material gains matter only if you are willing to take your good fortune and spread it around to those who could use it.

In the reading selection located on page 175, a former migrant worker and current union organizer named Roberto Acuna describes changes in his perceptions of his world. Acuna's story illustrates the main purpose of our ongoing attempts to think critically about the way our experiences shape our perceptions. By engaging in this process, we are continually trying to develop a clearer and more complete understanding of what is taking place so that we can make the most effective decisions in our lives. Because our perceptions are based on our experiences, they often change and evolve based on new experiences. Analyzing Roberto Acuna's personal odyssey will illustrate how experiences can shape and reshape our perceptions.

### THINKING ACTIVITY 4.5 *DESCRIBING A SHAPING EXPERIENCE*



Think of an experience that has shaped your life. Write an essay describing the experience and the ways it changed your life and how you perceive the world. After writing, analyze your experience by answering the following questions.

1. What were your *initial* perceptions of the situation? As you began the experience, you brought into the situation certain perceptions about the experience and the people involved.
2. What previous experiences had you undergone? Identify some of the influences that helped to shape these perceptions. Describe the actions that you either took or thought about taking.
3. As you became involved in the situation, what experiences in the situation influenced you to question or doubt your initial perceptions?
4. In what new ways did you view the situation that would better explain what was taking place? Identify the revised perceptions that you began to form about the experience. ◀

---

## THINKING CRITICALLY ABOUT PERCEPTIONS

So far, we have emphasized the great extent to which you actively participate in what you perceive by selecting, organizing, and interpreting. We have suggested that each of us views the world through our own unique lenses. This means that no two of us perceive the world in exactly the same way.

Because we actively participate in selecting, organizing, and interpreting the sensations we experience, however, our perceptions are often incomplete,

inaccurate, or subjective. To complicate the situation even more, our own limitations in perceiving are not the only ones that can cause us problems. Other people often purposefully create perceptions and misperceptions. An advertiser who wants to sell a product may try to create the impression that your life will be changed if you use this product. Or a person who wants to discredit someone else may spread untrue rumors about her in order to influence others' perceptions of her.

The only way you can correct the mistakes, distortions, and incompleteness of your perceptions is to *become aware* of this normally unconscious process by which you perceive and make sense of your world. By becoming aware of this process, you can think critically about what is going on and then correct your mistakes and distortions. In other words, you can use your critical thinking abilities to create a clearer and more informed idea of what is taking place. Perception alone cannot be totally relied on, and if you remain unaware of how it operates and of your active role, then you will be unable to exert any control over it. And in that case, you will be convinced that the way *you see* the world is the way the world *is*, even when your perceptions are mistaken, distorted, or incomplete.

The first step in critically examining your perceptions is to be willing to *ask questions* about what you are perceiving. As long as you believe that the way you see things is the only way to see them, you will be unable to recognize when your perceptions are distorted or inaccurate. For instance, if you are certain that your interpretation of the boy at the computer in Thinking Activity 4.1 or the photograph in Thinking Activity 4.2 is the only correct one, then you will not be likely to try and see other possible interpretations. But if you are willing to question your perception ("What are some other possible interpretations?"), then you will open the way to more fully developing your perception of what is taking place.

Besides asking questions, you have to try to become aware of the personal factors your lenses bring to your perceptions. As you have seen, each of us brings to every situation a whole collection of expectations, interests, fears, and hopes that can influence what we are perceiving. Consider the following situations:

You've been fishing all day without a nibble. Suddenly you get a strike! You reel it in, but just as you're about to pull the fish into the boat, it frees itself from the hook and swims away. When you get back home later that night, your friends ask you: "How large was the fish that got away?"

The teacher asks you to evaluate the performance of a classmate who is giving a report to the class. You don't like this other student because he



*Perceptions are often incomplete or inaccurate, so we need to use our critical thinking abilities to create a clearer, more informed idea of what is taking place.*

acts as if he's superior to the rest of the students in the class. How do you evaluate his report?

You are asked to estimate the size of an audience attending an event that your organization has sponsored. How many people are there?

In each of these cases, you can imagine that your perceptions might be influenced by certain hopes, fears, or prejudices that you brought to the situation,



causing your observations to become distorted or inaccurate. Although you usually cannot eliminate the personal feelings that are influencing your perceptions, you can become aware of them and try to control them. For instance, if you are asked to evaluate a group of people, one of whom is a good friend, you should try to keep these personal feelings in mind when making your judgment in order to make your perceptions as accurate as possible.

As you saw in Chapter 1, critical thinkers strive to see things from different perspectives. One of the best ways to do so is by communicating with others and engaging in *dialogue* with them. This means exchanging and critically examining ideas in an open and organized way. Similarly, dialogue is one of the main ways that you check your perceptions—by asking others what their perceptions are and then comparing and contrasting these with your own. This is exactly what you did when you discussed the different possible interpretations of the boy at the computer and the ambiguous photograph. By exchanging your perceptions with the perceptions of other class members, you developed a more complete sense of how these different events could be viewed, as well as the reasons that support these different perspectives.

Looking for reasons that support various perceptions also involves trying to discover any independent proof or evidence regarding the perception. When evidence is available in the form of records, photographs, videotapes, or experimental results, this information will certainly help you evaluate the accuracy of your perceptions. For example, consider the situations just described. What are some of the independent forms of evidence you could look for in trying to verify your perceptions?

Thinking critically about your perceptions means trying to avoid developing impulsive or superficial perceptions that you are unwilling to change. As you saw in Chapter 1, critical thinkers are *thoughtful* in approaching the world and *open* to modifying their views in the light of new information or better insight. Consider the following perceptions:

- Women are very emotional.
- Politicians are corrupt.
- Teenagers are wild and irresponsible.
- People who are good athletes are usually poor students.
- Men are thoughtless and insensitive.

These types of general perceptions are known as *stereotypes* because they express a belief about an entire group of people without recognizing the individual differences among members of the group. For instance, it is probably accurate to say that there are *some* politicians who are corrupt, but this is not the same thing as saying that all, or even most, politicians are corrupt. Stereotypes

affect your perception of the world because they encourage you to form an inaccurate and superficial idea of a whole group of people ("All teenagers are reckless drivers"). When you meet someone who falls into this group, you automatically perceive that person as having these stereotyped qualities ("This person is a teenager, so he is a reckless driver"). Even if you find that this person does not fit your stereotyped perception ("This teenager is not a reckless driver"), this sort of superficial and unthoughtful labeling does not encourage you to change your perception of the group as a whole. Instead, it encourages you to overlook the conflicting information in favor of your stereotyped perception ("All teenagers are reckless drivers—except for this one"). On the other hand, when you are perceiving in a thoughtful fashion, you try to see what a person is like as an individual, instead of trying to fit him or her into a pre-existing category.

### THINKING ACTIVITY 4.6 *ANALYZING STEREOTYPES*



1. Describe an incident in which you were perceived as a stereotype because of your age, ethnic or religious background, employment, accent, or place of residence.
2. Describe how it felt to be stereotyped in this way.
3. Explain what you think are the best ways to overcome stereotypes such as these. ◀

---

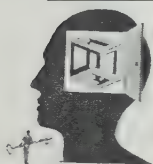
### SUMMARY

As your mind develops through the experiences you have and your reflection on these experiences, your perceptions of the world should continue to develop as well. By thinking critically about your perceptions, by seeking to view your world from perspectives other than your own and to understand the reasons that support these perspectives, your understanding of the world should become increasingly accurate and complete. You can view your efforts to think critically about what you are perceiving as a problem-solving process, as you continually attempt to interpret your experiences.

As you have seen in this chapter, much of your knowledge of the world begins with perceiving. But to develop knowledge and understanding, you

must make use of your thinking abilities in order to examine this experience critically. Increased understanding of the way the world operates thus increases the accuracy and completeness of your perceptions and leads you to informed beliefs about what is happening. In the next chapter we will be exploring further how to develop informed beliefs and knowledge of the world by combining perceptions with critical thinking.

## THINKING PASSAGE *MIGRANT WORKER*



This section is taken from the book *Working: People Talk About What They Do All Day and How They Feel About What They Do* by Studs Terkel. Terkel traveled throughout the United States interviewing people from a wide range of occupations, including farmers, steelworkers, corporate executives, and prostitutes. In his narrative, Roberto Acuna describes how he became an organizer for the United Farm Workers of America. At the beginning of his narrative, Acuna says, "The things I saw shaped my life." After reading his story, ask yourself, "Did 'things' shape Acuna's life? Or did Acuna shape and reshape the things he saw into his life?"

### MIGRANT WORKER

by Roberto Acuna

I walked out of the fields two years ago. I saw the need to change the California feudal system, to change the lives of farm workers, to make these huge corporations feel they're not above anybody. I am thirty-four years old and I try to organize for the United Farm Workers of America.

*His hands are calloused and each of his thumbnails is singularly cut.* If you're picking lettuce, the thumbnails fall off 'cause they're banged on the box. Your hands get swollen. You can't slow down because the foreman sees you're so many boxes behind and you'd better get on. But people would help each other. If you're feeling bad that day, somebody who's feeling pretty good would help. Any people that are suffering have to stick together, whether they like it or not, whether they be black, brown, or pink.

According to Mom, I was born on a cotton sack out in the fields, 'cause she had no money to go to the hospital. When I was a child, we used to migrate from California to Arizona and back and forth. The things I saw shaped my life. I remember when we used to go out and pick carrots and onions, the whole family. We tried to scratch a livin' out of the ground. I saw my parents cry out in despair, even though we had the whole family

working. At the time, they were paying sixty-two and a half cents an hour. The average income must have been fifteen hundred dollars, maybe two thousand.\*

This was supplemented by child labor. During those years, the growers used to have a Pick-Your-Harvest Week. They would get all the migrant kids out of school and have 'em out there pickin' the crops at peak harvest time. A child was off that week and when he went back to school, he got a little gold star. They would make it seem like something civic to do.

We'd pick everything: lettuce, carrots, onions, cucumbers, cauliflower, broccoli, tomatoes—all the salads you could make out of vegetables, we picked 'em. Citrus fruits, watermelons—you name it. We'd be in Salinas about four months. From there we'd go down into the Imperial Valley. From there we'd go to picking citrus. It was like a cycle. We'd follow the seasons.

After my dad died, my mom would come home and she'd go into her tent and I would go into ours. We'd roughhouse and everything and then we'd go into the tent where Mom was sleeping and I'd see her crying. When I asked her why she was crying she never gave me an answer. All she said was things would get better. She retired a beaten old lady with a lot of dignity. That day she thought would be better never came for her.

One time, my mom was in bad need of money, so she got a part-time evening job in a restaurant. I'd be helping her. All the growers would come in and they'd be laughing, making nasty remarks, and make passes at her. I used to go out there and kick 'em and my mom told me to leave 'em alone, she could handle 'em. But they would embarrass her and she would cry.

My mom was a very proud woman. She brought us up without any help from nobody. She kept the family strong. They say that a family that prays together stays together. I say that a family that works together stays together—because of the suffering. . . .

I'd go barefoot to school. The bad thing was they used to laugh at us, the Anglo kids. They would laugh because we'd bring tortillas and frijoles to lunch. They would have their nice little compact lunch boxes with cold milk in their thermos and they'd laugh at us because all we had was dried tortillas. Not only would they laugh at us, but the kids would pick fights.

\* "Today, because of our struggles, the pay is up to two dollars an hour. Yet we know that is not enough."



My older brother used to do most of the fighting for me and he'd come home with black eyes all the time.

I wanted to be accepted. It must have been in sixth grade. It was just before the Fourth of July. They were trying out students for this patriotic play. I wanted to do Abe Lincoln, so I learned the Gettysburg Address inside and out. I'd be out in the fields pickin' the crops and I'd be memorizin'. I was the only one who didn't have to read the part, 'cause I learned it. The part was given to a girl who was a grower's daughter. She had to read it out of a book, but they said she had better diction. I was very disappointed. I quit about eighth grade.

Any time anybody'd talk to me about politics, about civil rights, I would ignore it. It's a very degrading thing because you can't express yourself. They wanted us to speak English in the school classes. We'd put out a real effort. I would get into a lot of fights because I spoke Spanish and they couldn't understand it. I was punished. I was kept after school for not speaking English.

We used to have our own tents on the truck. Most migrants would live in the tents that were already there in the fields, put up by the company. We got one for ourselves, secondhand, but it was ours. Anglos used to laugh at us. "Here comes the carnival," they'd say. We couldn't keep our clothes clean, we couldn't keep nothing clean, because we'd go by the dirt roads and the dust. We'd stay outside the town.

I never did want to go to town because it was a very bad thing for me. We used to go to the small stores, even though we got clipped more. If we went to the other stores, they would laugh at us. They would always point at us with a finger. We'd go to town maybe every two weeks to get what we needed. Everybody would walk in a bunch. We were afraid. (Laughs.) We sang to keep our spirits up. We joked about our poverty. This one guy would say, "When I get to be rich, I'm gonna marry an Anglo woman, so I can be accepted into society." The other guy would say, "When I get rich I'm gonna marry a Mexican woman, so I can go to that Anglo society of yours and see them hang you for marrying an Anglo." Our world was around the fields.

I started picking crops when I was eight. I couldn't do much, but every little bit counts. Every time I would get behind on my chores, I would get a carrot thrown at me by my parents. I would daydream: If I were a millionaire, I would buy all these ranches and give them back to the people. I would picture my mom living in one area all the time and being admired by all the people in the community. All of a sudden I'd be rudely awakened by a broken carrot in my back. That would bust your whole dream apart and you'd work for a while and come back to daydreaming.

We used to work early, about four o'clock in the morning. We'd pick the harvest until about six. Then we'd run home and get into our supposedly clean clothes and run all the way to school because we'd be late. By the time we got to school, we'd be all tuckered out. Around maybe eleven o'clock, we'd be dozing off. Our teachers would send notes to the house telling Mom that we were inattentive. The only thing I'd make fairly good grades on was spelling. I couldn't do anything else. Many times we never did our homework, because we were out in the fields. The teachers couldn't understand that. I would get whacked there also.

School would end maybe four o'clock. We'd rush home again, change clothes, go back to work until seven, seven-thirty at night. That's not counting the weekends. On Saturday and Sunday, we'd be there from four-thirty in the morning until about seven-thirty in the evening. This is where we made the money, those two days. We all worked.

I would carry boxes for my mom to pack the carrots in. I would pull the carrots out and she would sort them into different sizes. I would get water for her to drink. When you're picking tomatoes, the boxes are heavy. They weigh about thirty pounds. They're dropped very hard on the trucks so they have to be sturdy.

The hardest work would be thinning and hoeing with a short-handled hoe. The fields would be about a half mile long. We would be bending and stooping all day. Sometimes you would have hard ground and by the time you got home, your hands would be full of calluses. And you'd have a backache. Sometimes I wouldn't have dinner or anything. I'd just go home and fall asleep and wake up just in time to go out to the fields again.

The grower would keep the families apart, hoping they'd fight against each other. He'd have three or four camps and he'd have the people over here pitted against the people over there. For jobs. He'd give the best crops to the people he thought were the fastest workers. This way he kept you going harder and harder, competing.

When I was sixteen, I had my first taste as a foreman. Handling braceros, aliens, that came from Mexico to work. They'd bring these people to work over here and then send them back to Mexico after the season was over. My job was to make sure they did a good job and pushin' 'em even harder. I was a company man, yes. My parents needed money and I wanted to make sure they were proud of me. A foreman is recognized. I was very naive. Even though I was pushing the workers, I knew their problems. They didn't know how to write, so I would write letters home for them. I would take them to town, buy their clothes, outside of the company stores. They paid me \$1.10 an hour. The farm workers' wage was raised to eighty-two and a half cents. But even the braceros were making more money than

me, because they were working piecework. I asked for more money. The manager said, "If you don't like it you can quit." I quit and joined the Marine Corps.

I joined the Marine Corps at seventeen. I was very mixed up. I wanted to become a first-class citizen. I wanted to be accepted and I was very proud of my uniform. My mom didn't want to sign the papers, but she knew I had to better myself and maybe I'd get an education in the services.

I did many jobs. I took a civil service exam and was very proud when I passed. Most of the others were college kids. There were only three Chicanos in the group of sixty. I got a job as a correctional officer in a state prison. I quit after eight months because I couldn't take the misery I saw. They wanted me to use a rubber hose on some of the prisoners—mostly Chicanos and blacks. I couldn't do it. They called me chicken-livered because I didn't want to hit nobody. They constantly harassed me after that. I didn't quit because I was afraid of them but because they were trying to make me into a mean man. I couldn't see it. This was Soledad State Prison.

I began to see how everything was so wrong. When growers can have an intricate watering system to irrigate their crops but they can't have running water inside the houses of workers. Veterinarians tend to the needs of domestic animals but they can't have medical care for the workers. They can have land subsidies for the growers but they can't have adequate unemployment compensation for the workers. They treat him like a farm implement. In fact, they treat their implements better and their domestic animals better. They have heat and insulated barns for the animals but the workers live in beat-up shacks with no heat at all.

Illness in the fields is 120 percent higher than the average rate for industry. It's mostly back trouble, rheumatism and arthritis, because of the damp weather and the cold. Stoop labor is very hard on a person. Tuberculosis is high. And now because of the pesticides, we have many respiratory diseases.

The University of California at Davis has government experiments with pesticides and chemicals. To get a bigger crop each year. They haven't any regard as to what safety precautions are needed. In 1964 or '65, an airplane was spraying these chemicals on the fields. Spraying rigs they're called. Flying low, the wheels got tangled on the fence wire. The pilot got up, dusted himself off, and got a drink of water. He died of convulsions. The ambulance attendants got violently sick because of the pesticides he had on his person. A little girl was playing around a sprayer. She stuck her tongue on it. She died instantly.

These pesticides affect the farm worker through the lungs. He breathes it in. He gets no compensation. All they do is say he's sick. They don't investigate the cause.

There were times when I felt I couldn't take it any more. It was 105 in the shade and I'd see endless rows of lettuce and I felt my back hurting . . . I felt the frustration of not being able to get out of the fields. I was getting ready to jump any foreman who looked at me cross-eyed. But until two years ago, my world was still very small.

I would read all these things in the papers about Cesar Chavez and I would denounce him because I still had that thing about becoming a first-class patriotic citizen. In Mexicali they would pass out leaflets and I would throw 'em away. I never participated. The grape boycott didn't affect me much because I was in lettuce. It wasn't until Chavez came to Salinas, where I was working in the fields, that I saw what a beautiful man he was. I went to this rally, I still intended to stay with the company. But something—I don't know—I was close to the workers. They couldn't speak English and wanted me to be their spokesman in favor of going on strike. I don't know—I just got caught up with it all, the beautiful feeling of solidarity.

You'd see the people on the picket lines at four in the morning, at the camp fires, heating up beans and coffee and tortillas. It gave me a sense of belonging. These were my own people and they wanted change. I knew this is what I was looking for. I just didn't know it before.

My mom had always wanted me to better myself. I wanted to better myself because of her. Now when the strikes started, I told her I was going to join the union and the whole movement. I told her I was going to work without pay. She said she was proud of me. (His eyes glisten. A long, long pause.) See, I told her I wanted to be with my people. If I were a company man, nobody would like me any more. I had to belong to somebody and this was it right here. She said, "I pushed you in your early years to try to better yourself and get a social position. But I see that's not the answer. I know I'll be proud of you."

All kinds of people are farm workers, not just Chicanos. Filipinos started the strike. We have Puerto Ricans and Appalachians too, Arabs, some Japanese, some Chinese. At one time they used us against each other. But now they can't and they're scared, the growers. They can organize conglomerates. Yet when we try organization to better our lives, they are afraid. Suffering people never dreamed it could be different. Cesar Chavez tells them this and they grasp the idea—and this is what scares the growers.



Now the machines are coming in. It takes skill to operate them. But anybody can be taught. We feel migrant workers should be given the chance. They got one for grapes. They got one for lettuce. They have cotton machines that took jobs away from thousands of farm workers. The people wind up in the ghettos of the city, their culture, their families, their unity destroyed.

We're trying to stipulate it in our contract that the company will not use any machinery without the consent of the farm workers. So we can make sure the people being replaced by the machines will know how to operate the machines.

Working in the fields is not in itself a degrading job. It's hard, but if you're given regular hours, better pay, decent housing, unemployment and medical compensation, pension plans—we have a very relaxed way of living. But the growers don't recognize us as persons. That's the worst thing, the way they treat you. Like we have no brains.

Now we see they have no brains. They have only a wallet in their head. The more you squeeze it, the more they cry out.

If we had proper compensation, we wouldn't have to be working seventeen hours a day and following the crops. We could stay in one area and it would give us roots. Being a migrant, it tears the family apart. You get in debt. You leave the area penniless. The children are the ones hurt the most. They go to school three months in one place and then on to another. No sooner do they make friends, they are uprooted again. Right here, your childhood is taken away. So when they grow up, they're looking for this childhood they have lost.

If people could see—in the winter, ice on the fields. We'd be on our knees all day long. We'd build fires and warm up real fast and go back onto the ice. We'd be picking watermelons in 105 degrees all day long. When people have melons or cucumber or carrots or lettuce, they don't know how they got on their table and the consequences to the people who picked it. If I had enough money, I would take busloads of people out to the fields and into the labor camps. Then they'd know how that fine salad got on their table. ■

### *Questions for Analysis*

1. *Initial Perceptions* What were Acuna's initial perceptions of being a migrant worker? Of his future goals? Of the growers? Of his fellow migrant workers?

2. *Experiences That Shaped His Initial Perceptions* What experiences shaped his initial perceptions about being a migrant worker? Of his future goals? Of the growers? Of his fellow migrant workers?
3. *Experiences That Raised Doubts and Questions About His Initial Perceptions*
  - a. How did becoming a foreman raise doubts about his initial perceptions?
  - b. How did becoming a correctional officer raise doubts about his initial perceptions?
  - c. How did meeting Cesar Chavez raise doubts about his initial perceptions?
4. *Revised Perceptions He Formed About His Situation* What were Acuna's revised perceptions of being a migrant worker? Of his future goals? Of the growers? Of his fellow migrant workers? ◀

DIVERSITY BINGO

A person over 60 years of age	A person born and raised on a farm	A person with a southern accent	A person who speaks more than one language	A person who is differently-abled
A person who is a Moslem	A person who is a naturalized citizen	A person of Hispano-Latin-American heritage	A woman	A person who is left-handed
A person who is a veteran	A person with red hair	An inhabitant of planet earth	A person who has received welfare	A person with black African ancestry
A man	A person with North American Indian heritage.	A person who graduated from high school	A single parent	A person who is over six feet tall
A person who is a grandparent	A person who is a vegetarian	A person of Asian heritage	A person who is Jewish	A person who is gay or lesbian





## Critical Thinking Perceiving and Knowing

*"There is no reality, only perception . . ."*

We experience the world through our five senses. Perception is the level at which we assign meaning to our sense experiences.

DeVry-Chicago has numerous pieces of art all over campus. Select and view one of these pieces and do the following:

1. What is the title? Why do you think the piece was given this particular title?
2. Where is it located on campus? Why do you think it was placed in/on this particular spot?
3. What is your perception of this work of art? Take your time, and be aware of all the elements that your senses are experiencing (including space, color, texture, etc.)













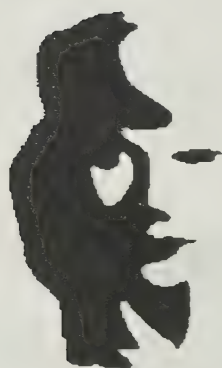












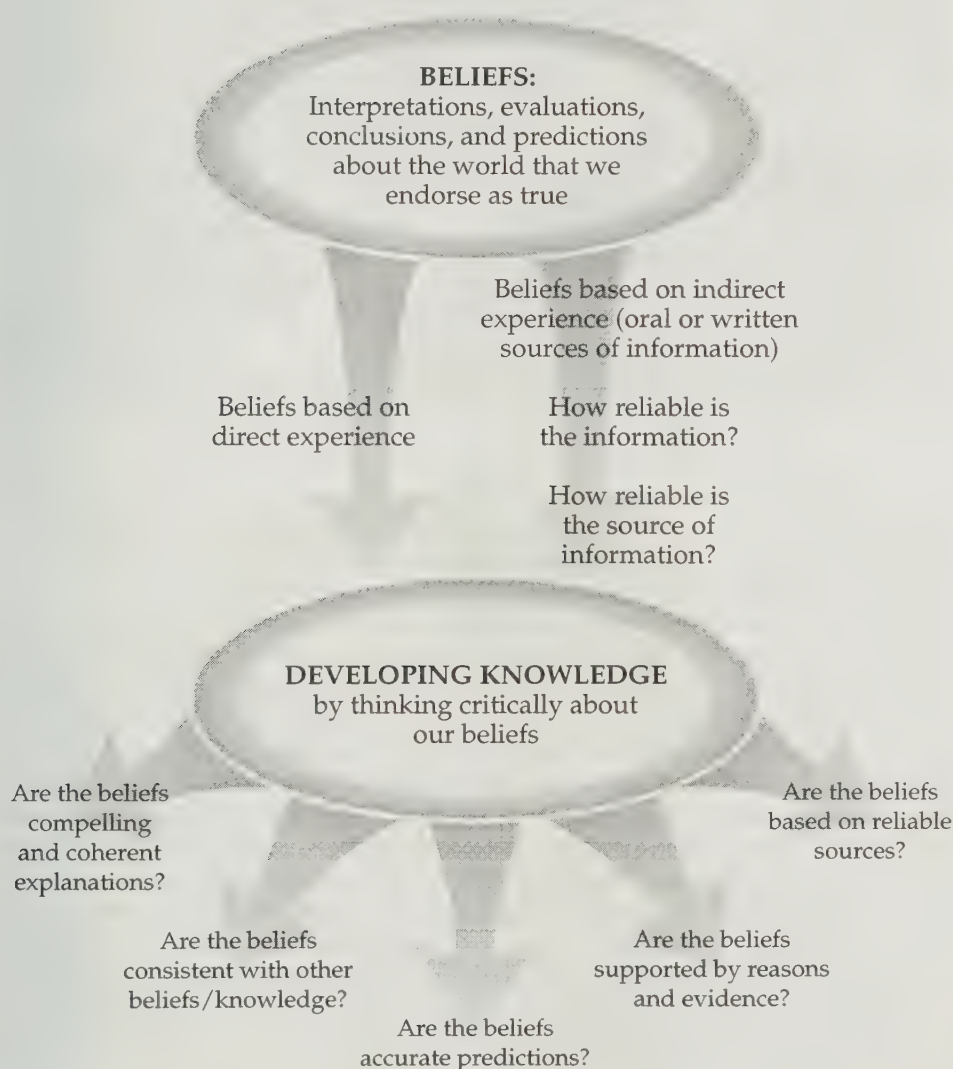








# CHAPTER 5 BELIEVING AND KNOWING



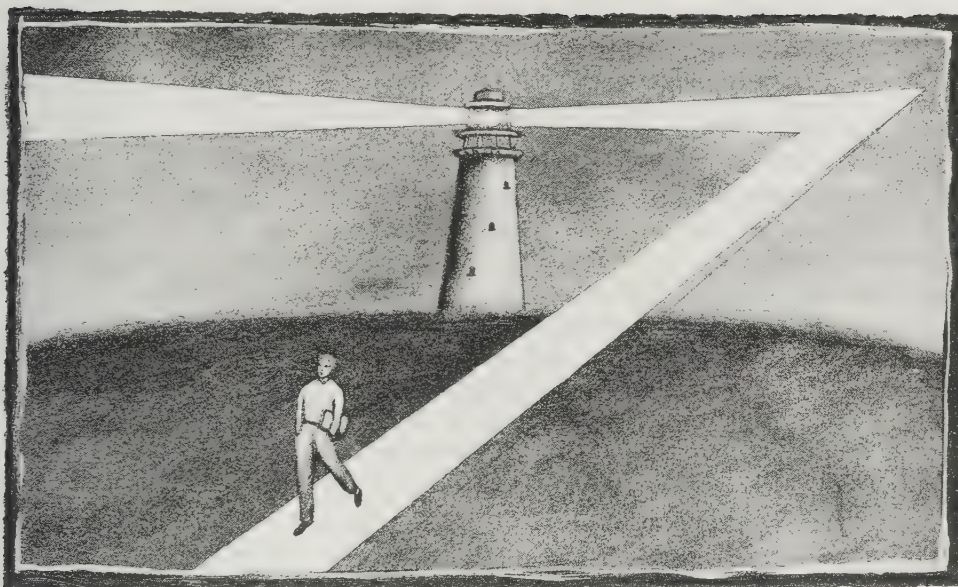
IT SEEMS TO BE a natural human impulse to try to understand the world we live in. This is the overall goal of thinking, which we have defined as the mental process by which we make sense of the world. Perceiving is an important part of this thinking process, but your perceptions, taken by themselves, do not provide a reliable foundation for your understanding of the world. Your perceptions are often incomplete, distorted, and inaccurate. They are shaped and influenced by your perceiving “lenses,” which reflect your own individual personality, experiences, biases, assumptions, and ways of viewing things. To clarify and validate your perceptions, you must critically examine and evaluate these perceptions.

Thinking critically about your perceptions results in the formation of your beliefs and ultimately in the construction of your knowledge about the world. For example, consider the following statements and answer “Yes,” “No,” or “Not sure” to each.

1. Humans need to eat to stay alive.
2. Smoking marijuana is a harmless good time.
3. Every human life is valuable.
4. Developing your mind is as important as taking care of your body.
5. People should care about other people, not just about themselves.

Your responses to these statements reflect certain beliefs you have, and these beliefs help you explain why the world is the way it is and how you ought to behave. In this chapter you will see that beliefs are the main tools you use to make sense of the world and guide your actions. The total collection of your beliefs represents your view of the world, your philosophy of life.

What exactly are “beliefs”? Beliefs represent an interpretation, evaluation, conclusion, or prediction about the nature of the world. For example, this statement—“I believe that the whale in the book *Moby Dick* by Herman Melville symbolizes a primal, natural force that men are trying to destroy”—represents an *interpretation* of that novel. To say, “I believe that watching soap operas is unhealthy because they focus almost exclusively on the seamy side of human life” expresses an *evaluation* of soap operas. The statement, “I believe that one of the main reasons two out of three people in the world go to bed hungry each night is that industrially advanced nations like the United States have not done a satisfactory job of sharing their knowledge” expresses a *conclusion* about the problem of world hunger. To say, “If drastic environmental measures are not undertaken to slow the global warming trend, then I believe that the polar ice caps will melt and the earth will be flooded” is to make a *prediction* about events that will occur in the future.



*Beliefs are the tools you use to make sense of the world and to guide your actions. The total collection of your beliefs represents your philosophy of life.*

Besides expressing an interpretation, evaluation, conclusion, or prediction about the world, beliefs also express an *endorsement* of the accuracy of the beliefs by the speaker or author. In the preceding statements the speakers are not simply expressing interpretations, evaluations, conclusions, and predictions; they are also indicating that they believe these views are *true*. In other words, the speakers are saying that they have adopted these beliefs as their own because they are convinced that they represent accurate viewpoints based on some sort of evidence. This “endorsement” by the speaker is a necessary dimension of beliefs, and we assume it to be the case even if the speaker doesn’t directly say, “I believe.” For example, the statement “Astrological predictions are meaningless because there is no persuasive reason to believe that the position of the stars has any effect on human affairs” expresses a belief even though it doesn’t specifically include the words “I believe.”

**Beliefs** Interpretations, evaluations, conclusions, or predictions about the world that we endorse as true.

Describe beliefs you have that fall in each of these categories (interpretation, evaluation, conclusion, prediction) and then explain the reason(s) you have for endorsing the beliefs.

1. **(Interpretation)** I believe that . . .

*Supporting reason(s):*

2. **(Evaluation)** I believe that . . .

*Supporting reason(s):*

3. **(Conclusion)** I believe that . . .

*Supporting reason(s):*

4. **(Prediction)** I believe that . . .

*Supporting reason(s):*

---

## BELIEVING AND PERCEIVING

The relationship between the activities of believing and perceiving is complex and interactive. On the one hand, your perceptions form the foundation of many of your beliefs about the world. On the other hand, your beliefs about the world shape and influence your perceptions of it. Let's explore this interactive relationship by examining a variety of beliefs, including

1. *Interpretations* ("Poetry enables humans to communicate deep, complex emotions and ideas that resist simple expression.")
2. *Evaluations* ("Children today spend too much time watching television and too little time reading.")
3. *Conclusions* ("An effective college education provides not only mastery of information and skills, but also evolving insight and maturing judgment.")
4. *Predictions* ("With the shrinking and integration of the global community, there will be an increasing need in the future for Americans to speak a second language.")

These beliefs, for people who endorse them, are likely to be based in large measure on a variety of perceptual experiences: events that people have seen and heard. The perceptual experiences by themselves, however, do not result in beliefs—they are simply experiences. For them to become beliefs, *you must think about* your perceptual experiences and then organize them into a belief structure. This thinking process of constructing beliefs is known as *cognition*, and it forms the basis of your understanding of the world. What are some of the perceptual experiences that might have led to the construction of the beliefs just described?



*Example: Many times I have seen that I can best express my feelings toward someone I care deeply about through a poem.*

As we noted in Chapter 4, “Perceiving,” your perceptual experiences not only contribute to the formation of your beliefs; the beliefs you have formed also have a powerful influence on the perceptions you *select* to focus on, how you *organize* these perceptions, and the manner in which you *interpret* them. For example, if you are reading a magazine and come across a poem, your perception of the poem is likely to be affected by your beliefs about poetry. These beliefs may influence whether you *select* the poem as something to read, the manner in which you *organize* and *relate* the poem to other aspects of your experience, and your *interpretation* of the poem’s meaning. This interactive relationship holds true for most beliefs. Assume that you endorse the four beliefs listed above. How might holding these beliefs influence your perceptions?

*Example: When I find a poem I like, I often spend a lot of time trying to understand how the author has used language and symbols to create and communicate meaning.*

The belief systems you have developed to understand your world help you correct inaccurate perceptions. When you watch a magician perform seemingly impossible tricks, your beliefs about the way the world operates inform you that what you are seeing is really a misperception, an illusion. In this context, you expect to be tricked, and your question is naturally, “How did he or she do that?” Potential problems arise, however, in those situations where it is not apparent that your perceptions are providing you with inaccurate information, and you use these experiences to form mistaken beliefs. For example, you may view advertisements linking youthful, attractive, fun-loving people with smoking cigarettes and form the apparently inaccurate belief that smoking cigarettes is an integral part of being youthful, attractive, and fun loving. As a critical thinker, you have a responsibility to continually monitor and evaluate both aspects of this interactive process—your beliefs and your perceptions—so that you can develop the most informed perspective on the world.

### THINKING ACTIVITY 5.1 ANALYZING A FALSE PERCEPTION



Describe an experience of a perception you had that later turned out to be false, based on subsequent experiences or reflection. Address the following questions:

1. What qualities of the perception led you to believe it to be true?
2. How did this perception influence your beliefs about the world?
3. Describe the process that led you to the conclusion that the perception was false. ◀

---

## BELIEVING AND KNOWING

We have seen that beliefs are a major tool that helps us explain why the world is the way it is and guides us in making effective decisions. As you form and reform your beliefs, based on your experiences and your thinking about these experiences, you usually try to develop beliefs that are as accurate as possible. The more accurate your beliefs are, the better able you are to understand what is taking place and to predict what will occur in the future. The beliefs you form vary tremendously in accuracy. For example, how accurate do you think the following beliefs are?

1. I believe that there is a very large man who lives on the moon.
2. I believe that there is life on other planets.
3. I believe that a college education will lead me to a satisfying and well-paying job.
4. I believe that there is life on this planet.

In considering these beliefs, you probably came to the conclusion that belief 1 was not accurate at all, belief 2 was possible but far from being certain, belief 3 was likely but not guaranteed to be accurate, and belief 4 was definitely accurate.

The idea of *knowing* is one of the means humans have developed to distinguish beliefs supported by strong reasons or evidence (such as the belief that there is life on earth) from beliefs for which there is less support (such as beliefs that there is life on other planets and that college will lead to a job) or from beliefs disproved by reasons or evidence to the contrary (such as a belief in the man in the moon). Let's try replacing the word *believe* with the word *know* in the preceding statements:

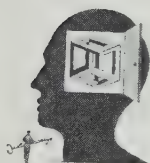
1. I *know* that there is a very large man who lives on the moon.
2. I *know* that there is life on other planets.
3. I *know* that a college education will lead me to a satisfying and well-paying job.
4. I *know* that there is life on this planet.

The only statement in which it clearly makes sense to use the word *know* is the fourth one because there is conclusive evidence that this belief is accurate. In the case of sentence 1, we would say that the person who believes this is seriously mistaken. In the case of sentence 2, we might say that although life on other planets is a possibility, there is no conclusive evidence (at present) that supports this view. In the case of sentence 3, we might say that although for many people a college education leads to a satisfying and well-paying job, this

is not always the case. As a result, we cannot say that we know this belief (or belief 2) is accurate. Another way of expressing the difference between “believing” and “knowing” is by means of the following saying:

You can *believe* what is not so, but you cannot *know* what is not so.

## THINKING ACTIVITY 5.2 *EVALUATING THE ACCURACY OF BELIEFS*



State whether you think that each of the following beliefs is:

- *Completely accurate* (so that you would say, “I know this is the case”)
- *Generally accurate* but not completely accurate (so that you would say, “This is often, but not always, the case”)
- *Generally not accurate* but sometimes accurate (so that you would say, “This is usually not the case but is sometimes true”)
- *Definitely not accurate* (so that you would say, “I know that this is not the case”)

After determining the *degree of accuracy* in this way, explain why you have selected your answer.

- *Example:* I believe that if you study hard, you will achieve good grades.
  - *Degree of accuracy:* Generally, but not completely, accurate.
  - *Explanation:* Although many students who study hard achieve good grades, this is not always true. Sometimes students have difficulty understanding the work in a certain subject, no matter how hard they study. And sometimes they just don’t know how to study effectively. In other cases, the students may lack adequate background or experience in a certain subject area (for example, English may be a second language), or they might have a personality conflict with the instructor.
1. I believe that essay exams are more difficult than multiple-choice exams.
  2. I believe that longer prison sentences discourage people from committing crimes.
  3. I believe that there are more people on the earth today than there were one hundred years ago.
  4. I believe that your astrological sign determines your basic personality traits.
  5. I believe that you will never get rich by playing the lottery.
  6. *Your example of a belief:*



When someone indicates that he or she thinks a belief is completely accurate by saying, “I know,” your response is often, “How do you know?” If the person cannot give you a satisfactory answer to this question, you are likely to say something like, “If you can’t explain how you know it, then you don’t *really* know it—you’re just saying it.” In other words, when you say that “you know” something, you mean at least two different things:

1. I think this belief is completely accurate.
2. I can explain to you the reasons or evidence that support this belief.

If either of these standards is not met, we would usually say that the person does not really “know.” We work at evaluating the accuracy of our beliefs by examining the reasons or evidence that support them (known as the *justification* for the beliefs). Looked at in this way, your beliefs form a *range*, as pictured:

<i>Beliefs that you know are</i>	<i>Beliefs that you are not sure are</i>	<i>Beliefs that you know are</i>
inaccurate	accurate	accurate
unjustified	justified	justified

Just as temperature is a scale that varies from cold to hot with many degrees in between, so your beliefs can be thought of as forming a rough scale based on their accuracy and justification. As you learn more about the world and yourself, you try to form beliefs that are increasingly more accurate and justified.

Of course, determining the accuracy and justification of your beliefs is a challenging business. You generally use a number of different questions to explore and evaluate your beliefs, including the following:

- How well do my beliefs *explain* what is taking place?
- How do these beliefs *relate to other beliefs* I have about the world?
- How well do these beliefs enable me to *predict* what will happen in the future?
- How well do the *reasons or evidence* support my beliefs?
- How *reliable* is the information on which my beliefs are based?

The key point is that as a critical thinker, you should continually try to form and re-form your beliefs so that you can make sense of the world in increasingly more effective ways. Even when you find that you have maintained certain beliefs over a long period of time, you should discover that your explorations result in a deeper and fuller understanding of these beliefs.



**THINKING PASSAGE** *IS THE EARTH ROUND OR FLAT?*

In Chapter 1 you examined the process that led you to the conclusion that the earth is round, not flat. The following article, “Is the Earth Round or Flat?” by the author and astrophysicist Alan Lightman, examines this process and provides a clear analysis of the difference between “believing” and “knowing.” Read the article and answer the questions that follow.

**IS THE EARTH ROUND OR FLAT?**

by Alan Lightman

I propose that there are few of you who have personally verified that the Earth is round. The suggestive globe in the den or the Apollo photographs don't count. These are secondhand pieces of evidence that might be thrown out entirely in court. When you think about it, most of you simply believe what you hear. Round or flat, whatever. It's not a life-or-death matter, unless you happen to live near the edge.

A few years ago I suddenly realized, to my dismay, that I didn't know with certainty if the Earth were round or flat. I have scientific colleagues, geodesists they are called, whose sole business is determining the detailed shape of the Earth by fitting mathematical formulae to someone else's measurements of the precise locations of test stations on the Earth's surface. And I don't think those people really know either.

Aristotle is the first person in recorded history to have given proof that the Earth is round. He used several different arguments, most likely because he wanted to convince others as well as himself. A lot of people believed everything Aristotle said for 19 centuries.

His first proof was that the shadow of the Earth during a lunar eclipse is always curved, a segment of a circle. If the Earth were any shape but spherical, the shadow it casts, in some orientations, would not be circular. (That the normal phases of the moon are crescent-shaped reveals the moon is round.) I find this argument wonderfully appealing. It is simple and direct. What's more, an inquisitive and untrusting person can knock off the experiment alone, without special equipment. From any given spot on the Earth, a lunar eclipse can be seen about once a year. You simply have to look up on the right night and carefully observe what's happening. I've never done it.

Aristotle's second proof was that stars rise and set sooner for people in the East than in the West. If the Earth were flat from east to west, stars would rise as soon for Occidentals as for Orientals. With a little scribbling on a piece of paper, you can see that these observations imply a round



Earth, regardless of whether it is the Earth that spins around or the stars that revolve around the Earth. Finally, northbound travelers observe previously invisible stars appearing above the northern horizon, showing the Earth is curved from north to south. Of course, you do have to accept the reports of a number of friends in different places or be willing to do some traveling.

Aristotle's last argument was purely theoretical and even philosophical. If the Earth had been formed from smaller pieces at some time in the past (or *could* have been so formed), its pieces would fall toward a common center, thus making a sphere. Furthermore, a sphere is clearly the most perfect solid shape. Interestingly, Aristotle placed as much emphasis on this last argument as on the first two. Those days, before the modern "scientific method," observational check wasn't required for investigating reality.

Assuming for the moment that the Earth is round, the first person who measured its circumference accurately was another Greek, Eratosthenes (276–195 B.C.). Eratosthenes noted that on the first day of summer, sunlight struck the bottom of a vertical well in Syene, Egypt, indicating the sun was directly overhead. At the same time in Alexandria, 5,000 stadia distant, the sun made an angle with the vertical equal to  $1/50$  of a circle. (A stadium equaled about a tenth of a mile.) Since the sun is so far away, its rays arrive almost in parallel. If you draw a circle with two radii extending from the center outward through the perimeter (where they become local verticals), you'll see that a sun ray coming in parallel to one of the radii (at Syene) makes an angle with the other (at Alexandria) equal to the angle between the two radii. Therefore Eratosthenes concluded that the full circumference of the Earth is  $50 \times 5,000$  stadia, or about 25,000 miles. This calculation is within one percent of the best modern value.

For at least 600 years educated people have believed the Earth is round. At nearly any medieval university, the quadrivium was standard fare, consisting of arithmetic, geometry, music, and astronomy. The astronomy portion was based on the *Tractatus de Sphaera*, a popular textbook first published at Ferrara, Italy, in 1472 and written by a 13th century, Oxford-educated astronomer and mathematician, Johannes de Sacrobosco. The *Sphaera* proves its astronomical assertions, in part, by a set of diagrams with movable parts, a graphical demonstration of Aristotle's second method of proof. The round Earth, being the obvious center of the universe, provides a fixed pivot for the assembly. The cutout figures of the sun, the moon, and the stars revolve about the Earth.

By the year 1500, 24 editions of the *Sphaera* had appeared. There is no question that many people *believed* the Earth was round. I wonder how

many *knew* this. You would think that Columbus and Magellan might have wanted to ascertain the facts for themselves before waving good-bye.

To protect my honor as a scientist, someone who is supposed to take nothing for granted, I set out with my wife on a sailing voyage in the Greek islands. I reasoned that at sea I would be able to calmly observe land masses disappear over the curve of the Earth and thus convince myself, firsthand, that the Earth is round.

Greece seemed a particularly satisfying place to conduct my experiment. I could sense those great ancient thinkers looking on approvingly, and the layout of the place is perfect. Hydra rises about 2,000 feet above sea level. If the Earth has a radius of 4,000 miles, as they say, then Hydra should sink down to the horizon at a distance of about 50 miles, somewhat less than the distance we were to sail from Hydra to Kea. The theory was sound and comfortable. At the very least, I thought, we would have a pleasant vacation.

As it turned out, that was all we got. Every single day was hazy. Islands faded from view at a distance of only eight miles, when the land was still a couple of degrees above the horizon. I learned how much water vapor was in the air but nothing about the curvature of the Earth.

I suspect that there are quite a few items we take on faith, even important things, even things we could verify without much trouble. Is the gas we exhale the same as the gas we inhale? (Do we indeed burn oxygen in our metabolism, as they say?) What is your blood made of? (Does it indeed have red and white "cells"?) These questions could be answered with a balloon, a candle, and a microscope.

When we finally do the experiment, we relish the knowledge. At one time or another, we have all learned something for ourselves, from the ground floor up, taking no one's word for it. There is a special satisfaction and joy in being able to tell somebody something you have pieced together from scratch, something you really know. I think that exhilaration is a big reason why people do science.

Someday soon, I'm going to catch the Earth's shadow in a lunar eclipse, or go to sea in clear air, and find out for sure if the Earth is round or flat. Actually, the Earth is reported to flatten at the poles, because it rotates. But that's another story. ■

## *Questions for Analysis*

1. Explain why Lightman states that although he always *believed* that the earth was round, "A few years ago I suddenly realized, to my dismay, that I didn't know with certainty if the Earth were round or flat."

2. In your own words, explain how you could prove to someone else that the Earth is round.
3. Describe a conclusion about the world that you “believe” but do not “know,” in Lightman’s sense. Analyze your belief in terms of the criteria for determining the accuracy of beliefs.
  - How effectively do your beliefs *explain what is taking place*?
  - To what extent are these beliefs consistent with other beliefs you have about the world?
  - How effectively do your beliefs help you *predict what will happen in the future*?
  - To what extent are your beliefs supported by *sound reasons and compelling evidence* derived from *reliable sources*? ◀

---

## KNOWLEDGE AND TRUTH

Most people in our culture are socialized to believe that knowledge and truth are absolute and unchanging. One major goal of social institutions, including family, school system, and religion, is to transfer the knowledge that has been developed over the ages. Under this model, the role of learners is to absorb this information passively, like sponges. As you have seen in this text, however, achieving knowledge and truth is a much more complicated process than this. Instead of simply relying on the testimony of authorities like parents, teachers, textbooks, and religious leaders, critical thinkers have a responsibility to engage *actively* in the learning process and participate in developing their own understanding of the world.

The need for this active approach to knowing is underscored by the fact that authorities often disagree about the true nature of a given situation or the best course of action. It is not uncommon, for example, for doctors to disagree about a diagnosis, for economists to differ on the state of the economy, for researchers to present contrasting views on the best approach to curing cancer, for psychiatrists to disagree on whether a convicted felon is a menace to society or a harmless victim of social forces, and for religions to present conflicting approaches to achieving eternal life.

What do we do when experts disagree? As a critical thinker, you must analyze and evaluate all the available information, develop your own well-reasoned beliefs, and recognize when you don’t have sufficient information to arrive at well-reasoned beliefs. You must realize that these beliefs may evolve over time as you gain information or improve your insight.

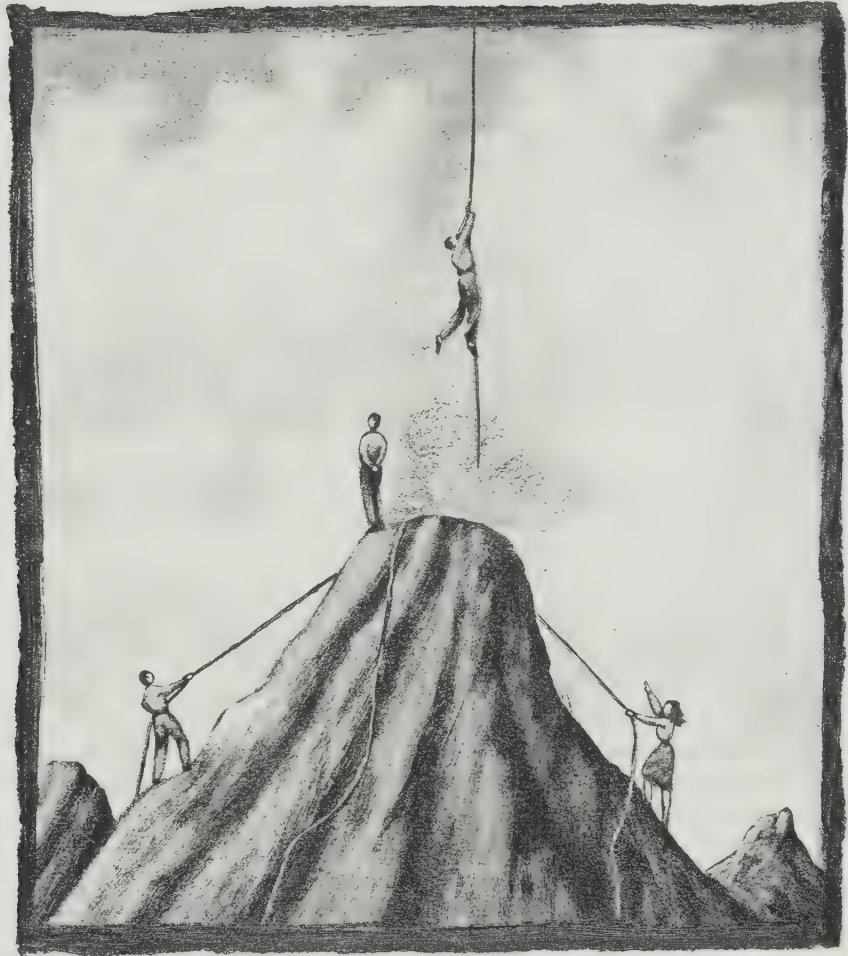
Although there are compelling reasons to view knowledge and truth in this way, many people resist it. Either they take refuge in a belief in the absolute, unchanging nature of knowledge and truth, as presented by the appropriate authorities, or they conclude that there is no such thing as knowledge or truth and that trying to seek either is a futile enterprise. In this latter view of the world, known as *relativism*, all beliefs are considered to be “relative” to the person or context in which they arise. For the relativist, all opinions are equal in validity to all others; we are never in a position to say with confidence that one view is right and another view is wrong. Although a relativistic view is appropriate in some areas of experience—for example, in matters of taste such as fashion—in many other areas it is not. Although it is often difficult to achieve, knowledge, in the form of well-supported beliefs, does exist. Some beliefs *are* better than others, not because an authority has proclaimed them so but because they can be analyzed in terms of the following criteria:

- How effectively do your beliefs *explain what is taking place*?
- To what extent are these beliefs *consistent with other beliefs* about the world?
- How effectively do your beliefs help you *predict what will happen* in the future?
- To what extent are your beliefs supported by *sound reasons and compelling evidence* derived from *reliable sources*?

Another important criterion for evaluating certain of your beliefs is that the beliefs are *falsifiable*. This means that you can state conditions—tests—under which the beliefs could be disproved, and the beliefs *pass* those tests. For example, if you believe that you can create ice cubes by placing water-filled trays in a freezer, it is easy to see how you can conduct an experiment to determine if your belief is accurate. On the other hand, if you believe that your destiny is related to the positions of the planets and stars (as astrologers do), it is not clear how you can conduct an experiment to determine if your belief is accurate. Since a belief that is not *falsifiable* can never be *proved*, such a belief is of questionable accuracy.

A critical thinker sees knowledge and truth as goals that we are striving to achieve, processes that we are all actively involved in as we construct our understanding of the world. Developing accurate knowledge about the world is often a challenging process of exploration and analysis in which our understanding grows and evolves over a period of time. In Chapter 4, we examined five contrasting media accounts of the assassination of Malcolm X. All five authors, we found, viewed the event through their own perceiving lenses, which





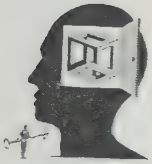
*A critical thinker sees knowledge and truth as ongoing goals that we are striving to achieve through exploration and analysis, not fixed destinations.*

shaped and influenced the information they selected, the way they organized it, their interpretations of the individuals involved, and the language they chose to describe it. Despite the differences in these accounts, we *know* that an actual sequence of events occurred on that February day in 1965. The challenge for us is to try to figure out what actually happened by investigating different accounts, evaluating the reliability of the accounts, and putting together a coherent picture



of what took place. This is the process of achieving knowledge and truth that occurs in every area of human inquiry—a process of exploration, critical analysis, and evolving understanding.

### **THINKING ACTIVITY 5.3** *ANALYZING DIFFERENT ACCOUNTS OF THE BATTLE OF LEXINGTON*



Read the following passages, which purport to give factual reports about the events that were observed at the Battle of Lexington during the American Revolution.\* After analyzing these accounts, construct your own version of what you believe took place on that day. Include such information as the size of the two forces, the sequence of events (for example, who fired the first shot?), and the manner in which the two groups conducted themselves (were they honorable? brave?). Use these questions to guide your analysis of the varying accounts:

- Does the account provide a convincing description of what took place?
- What reasons and evidence support the account?
- How reliable is the source?
- What are the author's perceiving lenses that might influence his account?
- Is the account consistent with other reliable descriptions of this event?

Here is some background information to aid you in your analysis:

- *Account 1* is drawn from a mainstream American history textbook.
- *Account 2* is taken from a British history textbook written by a former prime minister of England.
- *Account 3* comes from a colonist who participated in this event with the colonial forces. He gave the account thirty years after the battle to qualify for a military pension.
- *Account 4* comes from a British soldier who participated in the event. He gave the account in a deposition while he was a prisoner of war of the colonial forces.

#### **FOUR ACCOUNTS OF THE BATTLE OF LEXINGTON**

In April 1775, General Gage, the military governor of Massachusetts, sent out a body of troops to take possession of military stores at Concord, a short

\* This exercise was developed by Kevin O'Reilly, creator of the Critical Thinking in History Project in Boston, Massachusetts.

distance from Boston. At Lexington, a handful of “embattled farmers,” who had been tipped off by Paul Revere, barred the way. The “rebels” were ordered to disperse. They stood their ground. The English fired a volley of shots that killed eight patriots. It was not long before the swift-riding Paul Revere spread the news of this new atrocity to the neighboring colonies. The patriots of all of New England, although still a handful, were now ready to fight the English. Even in faraway North Carolina, patriots organized to resist them.

—Samuel Steinberg, *The United States: Story of a Free People*

At five o'clock in the morning the local militia of Lexington, seventy strong, formed up on the village green. As the sun rose the head of the British column, with three officers riding in front, came into view. The leading officer, brandishing his sword, shouted, “Disperse, you rebels, immediately!” The militia commander ordered his men to disperse. The colonial committees were very anxious not to fire the first shot, and there were strict orders not to provoke open conflict with the British regulars. But in the confusion someone fired. A volley was returned. The ranks of the militia were thinned and there was a general *melee*. Brushing aside the survivors, the British column marched on to Concord.

—Winston Churchill, *History of the English Speaking Peoples*

The British troops approached us rapidly in platoons, with a General officer on horse-back at their head. The officer came up to within about two rods of the centre of the company, where I stood.—The first platoon being about three rods distant. They there halted. The officer then swung his sword, and said, “Lay down your arms, you damn'd rebels, or you are all dead men—fire.” Some guns were fired by the British at us from the first platoon, but no person was killed or hurt, being probably charged only with powder. Just at this time, Captain Parker ordered every man to take care of himself. The company immediately dispersed; and while the company was dispersing and leaping over the wall, the second platoon of the British fired, and killed some of our men. There was not a gun fired by any of Captain Parker's company within my knowledge.

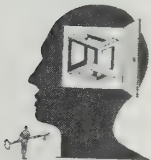
—Sylvanus Wood, *Deposition*

I, John Bateman, belonging to the Fifty-Second Regiment, commanded by Colonel Jones, on Wednesday morning on the nineteenth day of April instant, was in the party marching to Concord, being at Lexington, in the County of Middlesex; being nigh the meeting-house in said Lexington,

there was a small party of men gathered together in that place when our Troops marched by, and I testify and declare, that I heard the word of command given to the Troops to fire, and some of said Troops did fire, and I saw one of said small party lay dead on the ground nigh said meeting-house, and I testify that I never heard any of the inhabitants so much as fire one gun on said Troops.

—John Bateman, *Testimony* ◀

### THINKING ACTIVITY 5.4 *ANALYZING DIFFERENT ACCOUNTS OF THE CONFRONTATION AT TIANANMEN SQUARE*



In the spring of 1989, a vigorous prodemocracy movement erupted in Beijing, the capital of China. Protesting the authoritarian control of the Communist regime, thousands of students staged demonstrations, engaged in hunger strikes, and organized marches involving hundreds of thousands of people. The geographical heart of these activities was the historic Tiananmen Square, taken over by the demonstrators who had erected a symbolic “Statue of Liberty.” On June 4, 1989, the fledgling prodemocracy movement came to a bloody end when the Chinese army entered Tiananmen Square and seized control of it. The following are various accounts of this event from different sources. After analyzing these accounts, construct your own version of what you believe took place on that day. Use these questions to guide your analysis of the varying accounts:

- Does the account provide a convincing description of what took place?
- What reasons and evidence support the account?
- How reliable is the source? What are the author’s perceiving lenses, which might influence his or her account?
- Is the account consistent with other reliable descriptions of this event?

#### SEVEN ACCOUNTS OF EVENTS AT TIANANMEN SQUARE, 1989

##### **The New York Times (June 4, 1989)**

Tens of thousands of Chinese troops retook the center of the capital from pro-democracy protesters early this morning, killing scores of students and workers and wounding hundreds more as they fired submachine guns at crowds of people who tried to resist. Troops marched along the main roads surrounding central Tiananmen Square, sometimes firing in the air

and sometimes firing directly at crowds who refused to move. Reports on the number of dead were sketchy. Students said, however, that at least 500 people may have been killed in the crackdown. Most of the dead had been shot, but some had been run over by personnel carriers that forced their way through the protesters' barricades.

A report on the state-run radio put the death toll in the thousands and denounced the Government for the violence, the Associated Press reported. But the station later changed announcers and broadcast another report supporting the governing Communist party. The official news programs this morning reported that the People's Liberation Army had crushed a "counter-revolutionary rebellion." They said that more than 1,000 police officers and troops had been injured and some killed, and that civilians had been killed, but did not give details.

**Deng Xiaoping, Chairman of the Central Military Commission, as reported in *Beijing Review* (July 10–16, 1989)**

The main difficulty in handling this matter lay in that we had never experienced such a situation before, in which a small minority of bad people mixed with so many young students and onlookers. Actually, what we faced was not just some ordinary people who were misguided, but also a rebellious clique and a large number of the dregs of society. The key point is that they wanted to overthrow our state and the Party. They had two main slogans: to overthrow the Communist Party and topple the socialist system. Their goal was to establish a bourgeois republic entirely dependent on the West.

During the course of quelling the rebellion, many comrades of ours were injured or even sacrificed their lives. Some of their weapons were also taken from them by the rioters. Why? Because bad people mingled with the good, which made it difficult for us to take the firm measures that were necessary. Handling this matter amounted to a severe political test for our army, and what happened shows that our People's Liberation Army passed muster. If tanks were used to roll over people, this would have created a confusion between right and wrong among the people nationwide. That is why I have to thank the PLA officers and men for using this approach to handle the rebellion. The PLA losses were great, but this enabled us to win the support of the people and made those who can't tell right from wrong change their viewpoint. They can see what kind of people the PLA are, whether there was bloodshed at Tiananmen, and who were those that shed blood.





*Aftermath of the bloody clash between a prodemocracy student movement and the Chinese army on June 4, 1989.*

This shows that the people's army is truly a Great Wall of iron and steel of the Party and country. This shows that no matter how heavy the losses we suffer and no matter how generations change, this army of ours is forever an army under the leadership of the Party, forever the defender of the country, forever the defender of socialism, forever the defender of the public interest, and they are the most beloved of the people. At the same time, we should never forget how cruel our enemies are. For them we should not have an iota of forgiveness.

**Reporter (eyewitness account), reported in the *New York Times* (June 4, 1989)**

Changan Avenue, or the Avenue of Eternal Peace, Beijing's main east-west thoroughfare, echoed with screams this morning as young people carried the bodies of their friends away from the front lines. The dead or seriously wounded were heaped on the backs of bicycles or tricycle rickshaws and supported by friends who rushed through the crowds, sometimes sobbing as they ran.

The avenue was lit by the glow of several trucks and two armed personnel carriers that students and workers set afire, and bullets swooshed



overhead or glanced off buildings. The air crackled almost constantly with gunfire and tear gas grenades.

Students and workers tried to resist the crackdown, and destroyed at least sixteen trucks and two armored personnel carriers. Scores of students and workers ran alongside the personnel carriers, hurling concrete blocks and wooden staves into the treads until they ground to a halt. They then threw firebombs at one until it caught fire, and set the other alight after first covering it with blankets soaked in gasoline. The drivers escaped the flames, but were beaten by students. A young American man, who could not be immediately identified, was also beaten by the crowd after he tried to intervene and protect one of the drivers.

Clutching iron pipes and stones, groups of students periodically advanced toward the soldiers. Some threw bricks and firebombs at the lines of soldiers, apparently wounding many of them. Many of those killed were throwing bricks at the soldiers, but others were simply watching passively or standing at barricades when soldiers fired directly at them.

It was unclear whether the violence would mark the extinction of the seven-week-old democracy movement, or would prompt a new phase in the uprising, like a general strike. The violence in the capital ended a period of remarkable restraint by both sides, and seemed certain to arouse new bitterness and antagonism among both ordinary people and Communist Party officials for the Government of Prime Minister Li Peng.

"Our Government is already done with," said a young worker who held a rock in his hand, as he gazed at the army forces across Tiananmen Square. "Nothing can show more clearly that it does not represent the people." Another young man, an art student, was nearly incoherent with grief and anger as he watched the body of a student being carted away, his head blown away by bullets. "Maybe we'll fail today," he said. "Maybe we'll fail tomorrow. But someday we'll succeed. It's a historical inevitability."

### **Official Chinese Government Accounts**

"Comrades, thanks for your hard work. We hope you will continue with your fine efforts to safeguard security in the capital."

—Prime Minister Li Peng (addressing a group of soldiers after the Tiananmen Square event)

"It never happened that soldiers fired directly at the people."

—General Li Zhiyun

"The People's Liberation Army crushed a counter-revolutionary rebellion. More than 1,000 police officers and troops were injured and killed, and some civilians were killed."

—Official Chinese news program

"At most 300 people were killed in the operation, many of them soldiers."

—Yuan Mu, official government spokesman

"Not a single student was killed in Tiananmen Square."

—Chinese army commander

"My government has stated that a mob led by a small number of people prevented the normal conduct of the affairs of state. There was, I regret to say, loss of life on both sides. I wonder whether any other government confronting such an unprecedented challenge would have handled the situation any better than mine did."

—Han Xu, Chinese ambassador to the United States

***The New York Times (June 5, 1989)***

It was clear that at least 300 people had been killed since the troops first opened fire shortly after midnight on Sunday morning but the toll may be much higher. Word-of-mouth estimates continued to soar, some reaching far into the thousands. . . . The student organization that coordinated the long protests continued to function and announced today that 2,600 students were believed to have been killed. Several doctors said that, based on their discussions with ambulance drivers and colleagues who had been on Tiananmen Square, they estimated that at least 2,000 had died. Soldiers also beat and bayoneted students and workers after daybreak on Sunday, witnesses said, usually after some provocation but sometimes entirely at random. "I saw a young woman tell the soldiers that they are the people's army, and that they mustn't hurt the people," a young doctor said after returning from one clash Sunday. "Then the soldier shot her, and ran up and bayoneted her."

***Xiao Bin (eyewitness account immediately after the event)***

Tanks and armored personnel carriers rolled over students, squashing them into jam, and the soldiers shot at them and hit them with clubs. When students fainted, the troops killed them. After they died, the troops fired one more bullet into them. They also used bayonets. They were too cruel. I never saw such things before.

**Xiao Bin** (*account after being taken into custody by Chinese authorities*)

I never saw anything. I apologize for bringing great harm to the party and the country. ◀

## THINKING ACTIVITY 5.5

### ANALYZING DIFFERENT ACCOUNTS OF A CURRENT EVENT



Locate three different newspaper or magazine accounts of an important event—a court decision, a crime, and a political demonstration are possible topics. Analyze each of the accounts with the questions listed below, and then construct your own version of what you believe took place.

- Does the account provide a convincing description of what took place?
- What reasons and evidence support the account?
- How reliable is the source? What are the author's perceiving lenses, which might influence his or her account?
- Is the account consistent with other reliable descriptions of this event? ◀

## BELIEFS BASED ON DIRECT EXPERIENCE

As you attempt to make sense of the world, your thinking abilities give you the means to

- Ask questions about your experience
- Work toward forming beliefs that will enable you to answer these questions and make useful decisions

Asking questions encourages you to try to form more accurate beliefs to explain what is taking place. By questioning your experience, instead of passively accepting it, you are better able to understand the situation you are in and to take effective control of your life.

Let's explore how these activities of asking questions and forming beliefs enable you to make sense of your world. Read carefully the following passage, in which a student, Maria, describes her experiences with the "system."

A few years ago my oldest son went to a party. On his way home he was accosted by three individuals who tried

to take his belongings. Seeing guns, my son's first reaction was to run away, which he did. While running he was shot and his wounds left him paralyzed from the neck down. As he lay in the intensive care unit of the hospital, I started to receive threatening phone calls telling me that if I identified them to the police, "they would finish the work."

I reported the phone calls to both the police and the telephone company, but I was irritated by the way the police handled the whole situation. They told me that there was no reason why the city should pay for having a police officer protect my son and they asked me what he was doing in the streets at this time. (The time was 11 P.M., and my son was almost eighteen years old.) Finally, I was told there was nothing that could be done. In my anger, I called the mayor's office, the senator's office, and the local councilman. I also wrote a letter to the police commissioner and mailed it registered, special delivery, as proof in case the situation didn't improve. Within a few hours, there was an officer at my son's bedside making sure that nothing further happened to him.

I learned that although there are many laws to protect citizens, if citizens don't fight for their rights, these laws will never be exercised. My opinion of the "system" changed after this experience. I believe that I shouldn't have had to go through so much red tape in order to have my legal rights. I feel that, if you don't take a stand, there is no one who will go out of the way to instruct you or to help out. I was never informed at the police headquarters about what to do and how to go about doing it. I was left standing without any hope at all. I feel sorry for those persons who are ignorant about how you can make the system work for you.

Throughout this experience, Maria's beliefs influenced her decisions. Before her son got shot, she had formed certain beliefs about the law, the police, and the



legal system as a whole. After her son was shot, Maria tried to make sense of the situation in terms of her beliefs and to act on their basis. However, Maria began to discover that her beliefs did not seem to explain what was happening. As Maria came to doubt the accuracy of her initial beliefs, she began to form new beliefs to explain what was happening. After taking action based on her revised beliefs, Maria received responses that seemed to support her revised beliefs about the law, the police, and the system. These revised beliefs helped her to understand and control the situation in a way her initial beliefs had not, leading her to the following conclusion: "I learned that although there are many laws to protect citizens, if citizens don't fight for their rights, these laws will never be exercised." After reflecting critically on her experiences, Maria was convinced that the revised beliefs she had formed to explain her situation and guide her actions were more accurate than her initial beliefs. As a result, she advises those who find themselves in similar circumstances to "take a stand" and "make the system work" for them.

Maria's story illustrates the process by which we form and re-form our beliefs, a process that often follows the following sequence:

1. We *form* beliefs to explain what is taking place. (These initial beliefs are often based on our past experiences.)
2. We *test* these beliefs by acting on them.
3. We *revise* (or re-form) these beliefs if our actions do not result in our desired goals.
4. We *retest* these revised beliefs by acting on them.

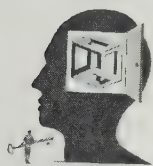
As you actively participate in this ongoing process of forming and re-forming beliefs, you are using your critical thinking abilities to identify and critically examine your beliefs by asking the following questions:

- How effectively do my beliefs *explain what is taking place*?
- To what extent are these beliefs *consistent with other beliefs* about the world?
- How effectively do my beliefs help me *predict what will happen* in the future?
- To what extent are my beliefs supported by *sound reasons and compelling evidence* derived from *reliable sources*?

This process of critical exploration enables you to develop a greater understanding of various situations in your experience and also gives you the means to exert more effective control in these situations.



### THINKING ACTIVITY 5.6 *ANALYZING A CHANGED BELIEF*



1. Interview another person about a belief he or she once held but no longer holds. Ask that person the following questions. (*Note: Try asking the questions in the course of a conversation you have with the person rather than confronting him or her with an intimidating series of formal questions. Most people like to be asked about their beliefs and are very cooperative.*)
  - a. What is the belief?
  - b. On what evidence did you hold that belief? (Was it based on personal perception or oral or written sources? What were they?)
  - c. What caused you to change the belief?
  - d. What were your feelings or attitudes when you found that changing the belief was necessary?
  - e. How do you feel now about changing the belief?
2. Next, write a summary of the interview. Begin by describing the person and explaining your relationship to him or her. Then give his or her answers to the questions. Be as detailed as possible.
3. Describe your reaction to the other person's experience. What did you learn about perception and belief from that experience? ◀

### THINKING PASSAGE *WHY I QUIT THE KLAN*



Examine the process of forming and re-forming beliefs by reading the following interview, which Studs Terkel conducted with C. P. Ellis, once president (Exalted Cyclops) of the Durham, North Carolina, chapter of the Ku Klux Klan. The interview traces the evolution of Ellis's limited, racist beliefs through thoughtful reflection and critical evaluation. Answer the questions that follow the passage.

#### WHY I QUIT THE KLAN by C. P. Ellis

All my life, I had work, never a day without work, worked all the over-time I could get and still could not survive financially. I began to see there's something wrong with this country. I worked my butt off and just never seemed to break even. I had some real great ideas about this nation. They say to abide by the law, go to church, do right and live for the Lord, and everything'll work out. But it didn't work out. It just kept gettin worse and worse. . . .

Tryin to come out of that hole, I just couldn't do it. I really began to get bitter. I didn't know who to blame. I tried to find somebody. Hatin America is hard to do because you can't see it to hate it. You gotta have

somethin to look at to hate. The natural person for me to hate would be black people, because my father before me was a member of the Klan. . . .

So I began to admire the Klan. . . . To be part of somethin. . . . The first night I went with the fellas . . . I was led into a large meeting room, and this was the time of my life! It was thrilling. Here's a guy who's worked all his life and struggled all his life to be something, and here's the moment to be something. I will never forget it. Four robed Klansmen led me into the hall. The lights were dim and the only thing you could see was an illuminated cross. . . . After I had taken my oath, there was loud applause goin throughout the buildin, musta been at least four hundred people. For this one little ol person. It was a thrilling moment for C. P. Ellis. . . .

The majority of [the Klansmen] are low-income whites, people who really don't have a part in something. They have been shut out as well as blacks. Some are not very well educated either. Just like myself. We had a lot of support from doctors and lawyers and police officers.

Maybe they've had bitter experiences in this life and they had to hate somebody. So the natural person to hate would be the black person. He's beginnin to come up, he's beginnin to . . . start votin and run for political office. Here are white people who are supposed to be superior to them, and we're shut out. . . . Shut out. Deep down inside, we want to be part of this *great society*. Nobody listens, so we join these groups. . . .

We would go to the city council meetings, and the blacks would be there and we'd be there. It was a confrontation every time. . . . We began to make some inroads with the city councilmen and county commissioners. They began to call us friend. Call us at night on the telephone: "C. P., glad you came to that meeting last night." They didn't want integration either, but they did it secretly, in order to get elected. They couldn't stand up openly and say it, but they were glad somebody was sayin it. We visited some of the city leaders in their homes and talked to em privately. It wasn't long before councilmen would call me up: "The blacks are comin up tonight and makin outrageous demands. How about some of you people showin up and have a little balance?" . . .

We'd load up our cars and we'd fill up half the council chambers, and the blacks the other half. During these times, I carried weapons to the meetings, outside my belt. We'd go there armed. We would wind up just hollerin and fussin at each other. What happened? As a result of our fightin one another, the city council still had their way. They didn't want to give up control to the blacks nor the Klan. They were usin us.

I began to realize this later down the road. One day I was walkin downtown and a certain city council member saw me comin. I expected

him to shake my hand because he was talkin to me at night on the telephone. I had been in his home and visited with him. He crossed the street [to avoid me]. . . . I began to think, somethin's wrong here.

Most of em are merchants or maybe an attorney, an insurance agent, people like that. As long as they kept low-income whites and low-income blacks fightin, they're gonna maintain control. I began to get that feelin after I was ignored in public. I thought: . . . you're not gonna use me any more. That's when I began to do some real serious thinkin.

The same thing is happening in this country today. People are being used by those in control, those who have all the wealth. I'm not espousing communism. We got the greatest system of government in the world. But those who have it simply don't want those who don't have it to have any part of it. Black and white. When it comes to money, the green, the other colors make no difference.

I spent a lot of sleepless nights. I still didn't like blacks. I didn't want to associate with them. Blacks, Jews or Catholics. My father said: "Don't have anything to do with em." I didn't until I met a black person and talked with him, eyeball to eyeball, and met a Jewish person and talked to him, eyeball to eyeball. I found they're people just like me. They cried, they cussed, they prayed, they had desires. Just like myself. Thank God, I got to the point where I can look past labels. But at that time, my mind was closed.

I remember one Monday night Klan meeting. I said something was wrong. Our city fathers were using us. And I didn't like to be used. The reactions of the others was not too pleasant: "Let's just keep fightin them niggers."

I'd go home at night and I'd have to wrestle with myself. I'd look at a black person walkin down the street, and the guy'd have ragged shoes or his clothes would be worn. That began to do something to me inside. I went through this for about six months. I felt I just had to get out of the Klan. But I wouldn't get out. . . .

[Ellis was invited, as a Klansman, to join a committee of people from all walks of life to make recommendations on how to solve racial problems in the school system. He very reluctantly accepted. After a few stormy meetings, he was elected co-chair of the committee, along with Ann Atwater, a black woman who for years had been leading local efforts for civil rights.]

A Klansman and a militant black woman, co-chairmen of the school committee. It was impossible. How could I work with her? But it was in our hands. We had to make it a success. This give me another sense of belongin, a sense of pride. This helped the inferiority feeling I had. A man

who has stood up publicly and said he despised black people, all of a sudden he was willin to work with em. Here's a chance for a low-income white man to be somethin. In spite of all my hatred for blacks and Jews and liberals, I accepted the job. Her and I began to reluctantly work together. She had as many problems workin with me as I had workin with her.

One night, I called her: "Ann, you and I should have a lot of differences and we got em now. But there's something laid out here before us, and if it's gonna be a success, you and I are gonna have to make it one. Can you lay aside some of these feelings?" She said: "I'm willing if you are." I said: "Let's do it."

My old friends would call me at night: "C. P., what the hell is wrong with you? You're sellin out the white race." This begin to make me have guilt feelins. Am I doin right? Am I doin wrong? Here I am all of a sudden makin an about-face and tryin to deal with my feeling, my heart. My mind was beginnin to open up. I was beginnin to see what was right and what was wrong. I don't want the kids to fight forever. . . .

One day, Ann and I went back to the school and we sat down. We began to talk and just reflect. . . . I begin to see, here you are, two people from the far ends of the fence, havin identical problems, except hers bein black and me bein white. . . . The amazing thing about it, her and I, up to that point, has cussed each other, bawled each other, we hated each other. Up to that point, we didn't know each other. We didn't know we had things in common. . . .

The whole world was openin up, and I was learning new truths that I had never learned before. I was beginning to look at a black person, shake hands with him, and see him as a human bein. I hadn't got rid of all this stuff. I've still got a little bit of it. But somethin was happenin to me. . . .

I come to work one mornin and some guys says: "You need a union." At this time I wasn't pro-union. My daddy was anti-labor too. We're not gettin paid much, we're havin to work seven days in a row. We're all starvin to death. . . . I didn't know nothin about organizin unions, but I knew how to organize people, stir people up. That's how I got to be business agent for the union.

When I began to organize, I began to see far deeper. I begin to see people again bein used. Blacks against whites. . . . There are two things management wants to keep: all the money and all the say-so. They don't want none of these poor workin folks to have none of that. I begin to see management fightin me with everythin they had. Hire anti-union law firms, badmouth unions. The people were makin \$1.95 an hour, barely able to get through weekends. . . .



It makes you feel good to go into a plant and . . . see black people and white people join hands to defeat the racist issues [union-busters] use against people. . . .

I tell people there's a tremendous possibility in this country to stop wars, the battles, the struggles, the fights between people. People say: "That's an impossible dream. You sound like Martin Luther King." An ex-Klansman who sounds like Martin Luther King. I don't think it's an impossible dream. It's happened in my life. It's happened in other people's lives in America. . . .

. . . They say the older you get, the harder it is for you to change. That's not necessarily true. Since I changed, I've set down and listened to tapes of Martin Luther King. I listen to it and tears come to my eyes cause I know what he's sayin now. I know what's happenin. ■

### *Questions for Analysis*

1. What were C. P. Ellis's most important *initial beliefs*? From where did his stereotypes originate?
2. What were some of the *experiences* that helped form these initial beliefs?
3. What *actions* did he take based on these initial beliefs?
4. What *experiences* raised doubts and questions about his initial beliefs? Why was he able to say: "Thank God, I got to the point where I can look past labels. . . . I was beginning to look at a black person, shake hands with him, and see him as a human bein."
5. What *revised beliefs* did he form to better make sense of his experiences? ◀

C. P. Ellis's powerful interview displays how the processes of perceiving and believing continually influence each other. On the one hand, our perceptions influence what we come to believe. Thus, for example, the fact that C. P. Ellis's friends and family insulted and disparaged African Americans, Jews, and Catholics led him to form racist beliefs about these groups. On the other hand, our beliefs influence the way we perceive things; that is, they influence the perceptual lenses we use to view the world. Thus the racist beliefs that C. P. Ellis had formed were reflected in his perceptual stereotypes of African Americans, Jews, and Catholics.

Fortunately, beliefs do not stand still in the minds of critical thinkers. We continue to form and re-form our beliefs, based in part on what we are experiencing and how we think about what we are experiencing. For C. P. Ellis, the



experience of meeting and working with people from other ethnic groups broke down his perceptual stereotypes of them, for he discovered: "I found they're people just like me. They cried, they cussed, they prayed, they had desires. Just like myself."

---

## BELIEFS BASED ON INDIRECT EXPERIENCE

Until now, we have been exploring the way we form and revise beliefs based on our direct experiences. Yet no matter how much you have experienced in your life, the fact is that no one person's direct experiences are enough to establish an adequate set of accurate beliefs. Each of us is only one person. We can only be in one place at one time—and with a limited amount of time at that. As a result, we depend on the direct experience of *other people* to provide us with beliefs and also to act as foundations for those beliefs. For example, does China exist? How do you know? Have you ever been there and seen it with your own eyes? Probably not, although in all likelihood you still believe in the existence of China and its over one billion inhabitants. Or consider the following questions. How would you go about explaining the reasons or evidence for your beliefs?

1. Were you really born on the day that you have been told you were?
2. Do germs really exist?
3. Do you have a brain in your head?
4. Does outer space extend infinitely in all directions?

In all probability, your responses to these questions reveal beliefs that are based on reasons or evidence beyond your direct experience. Of all the beliefs each one of us has, few are actually based on our direct experience. Instead, virtually all are founded on the experiences of others, who then communicated to us these beliefs and the evidence for them in some shape or form.

Of course, some people claim they do not really believe anything unless they have personally experienced it. They say, "Seeing is believing," "The proof of the pudding is in the eating," or "Show me" (the famous slogan of the state of Missouri). A little critical reflection, however, should convince you that these people are simply being unrealistic and unreasonable. It would be impossible for you to make most of the choices or decisions you do without depending on beliefs based on the experiences and knowledge of others. For instance, if I step out into moving traffic, will I really get hurt? Do guns really kill? Do I really have to eat to survive?

As you reach beyond your personal experience to form and revise beliefs, you find that the information provided by other people is available in two basic forms: written and spoken testimony.

Of course, you should not accept the beliefs of others without question. It is crucial that you use all your critical thinking abilities to examine what others suggest you believe. In critically examining the beliefs of others, you should pursue the same goals of accuracy and completeness that you seek when examining beliefs based on your personal experience. As a result, you should be interested in the reasons or evidence that support the information others are presenting. For example, when you ask directions from others, you try to evaluate how accurate the information is by examining the reasons or evidence that seems to support the information being given.

When you depend on information provided by others, however, there is a further question to be asked: How *reliable* is the person providing the information? For instance, what sort of people do you look for if you need to ask directions? Why do you look for these particular types of people? In most cases, when you need to ask directions, you try to locate someone who you think will be reliable—in other words, a person who you believe will give you *accurate* information.

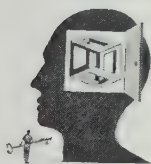
During the remainder of this chapter, you will explore the various ways you depend on others to form and revise your beliefs. In each case you will try to evaluate the information being presented by asking the following questions:

1. How reliable is the *information*?
2. How reliable is the *source* of the information?

### *How Reliable Are the Information and the Source?*

One of the main goals of your thinking is to make sense of information, and there are key questions that you should ask when evaluating information being presented to you. As you saw in Chapter 4, each of us views the world through our own unique “lenses,” which shape how we view the world and influence how we select and present information. Comparing different sources helps to make us aware of these lenses and highlights the different interests and purposes involved.

#### **THINKING ACTIVITY 5.7** *EVALUATING DIFFERENT PERSPECTIVES*



Locate two different passages concerning the same topic and then analyze each passage using the Information Evaluation Questions from this section of the chapter. For example, you might choose two different reviews of a movie, a play, a book, an art exhibit, or a concert—or two different passages analyzing a topic of current interest such as a criminal trial result or an American foreign policy issue. ◀

### INFORMATION EVALUATION QUESTIONS

1. *How reliable is the information?*
  - a. What are the main ideas being presented?
  - b. What reasons or evidence support the information?
  - c. Is the information accurate? Is there anything you believe to be false?
  - d. Is there anything that you believe has been left out?
2. *How reliable is the source of the information?*
  - a. What is the source of the information?
  - b. What are the interests or purposes of the source of this information?
  - c. How have the interests and purposes of the source of the information influenced the information selected for inclusion?
  - d. How have these interests and purposes influenced the way this information is presented?

There are a variety of standards or criteria you can use to evaluate the reliability of the sources of information. The following criteria are useful for evaluating both written and spoken testimony.

- Was the source of the information able to make *accurate observations*?
- What do you know about the *past reliability* of the source of the information?
- How *knowledgeable or experienced* is the source of the information?

#### *Was the Source of the Information Able to Make Accurate Observations?*

Imagine that you are serving as a juror at a trial in which two youths are accused of mugging an elderly person and stealing her social security check. During the trial the victim gives the following account of the experience:

I was walking into the lobby of my building at about six o'clock. It was beginning to get dark. Suddenly these two young men rushed in behind me and tried to grab my pocketbook. However, my bag was wrapped around my arm, and I just didn't want to let go of it. They pushed me around, yelling at me to let go of the bag. They finally pulled the bag loose and went running out of the building. I saw them pretty well while we were fighting, and I'm sure that the two boys sitting over there are the ones who robbed me.

In evaluating the accuracy of this information, you have to try to determine how reliable the source of the information is. In doing this, you might ask your-



*Every source of information views situations through its own unique "lenses" that influence what information it includes and the way that information is presented.*

self whether the person attacked was in a good position to make accurate observations. In the case of this person's testimony, what questions could you ask in order to evaluate the accuracy of the testimony?

*Example:* How sharp is the person's eyesight? (Does she wear glasses? Were the glasses knocked off in the struggle?)

When trying to determine the accuracy of testimony, you should try to use the same standards you would apply to yourself if you were in a similar situation. You would ask yourself questions: Was there enough light to see clearly? Did the excitement of the situation influence my perceptions? Were my senses operating at full capacity?

As you work toward evaluating the reliability of the source of the information, it is helpful to locate whatever additional sources of information are available. For instance, if you can locate others who can identify the muggers, or if stolen items were found in their possession, this will serve as evidence to support the testimony given by the witness.

Finally, accurate observations depend on more than how well your senses are functioning. Accurate observations also depend on how well you understand the personal factors (your "lenses") you or someone else brings to a



situation. These personal feelings, expectations, and interests often influence what you are perceiving without your being aware of it. Once you become aware of these influencing factors, you can attempt to make allowances for them in order to get a more accurate view of what is taking place. For example, imagine that you and your friends have sponsored an antiracism rally on your college campus. The campus police estimate the crowd to be 250, while your friends who organized the rally claim it was more than 500. How could you go about determining the reliability of your friends' information? What questions could you ask them to help clarify the situation? How could you go about locating additional information to gain a more accurate understanding of the situation?

*What Do You Know About the Past Reliability of the Source of the Information?* As you work at evaluating the reliability of information sources, it is useful to consider how accurate and reliable their information has been in the past. If someone you know has consistently given you sound information over a period of time, you gradually develop confidence in the accuracy of that person's reports. Police officers and newspaper reporters must continually evaluate the reliability of information sources. Over time, people in these professions establish information sources who have consistently provided reliable information. Of course, this works the other way as well. When people consistently give you inaccurate or incomplete information, you gradually lose confidence in their reliability and the reliability of their information.

Nevertheless, few people are either completely reliable or completely unreliable in the information they offer. You probably realize that your own reliability tends to vary, depending on the situation, the type of information you are providing, and the person you are giving the information to. Thus, in trying to evaluate the information offered by others, you have to explore each of these different factors before arriving at a provisional conclusion, which may then be revised in the light of additional information. For example, imagine that a local politician comes to your school to campaign for votes. She assures you that she fully supports higher education. How would you go about determining the reliability of the politician's information by speaking to her? What questions could you ask her to help clarify the situation? How could you go about locating additional information to gain a more accurate understanding of this situation?

*How Knowledgeable or Experienced Is the Source of the Information?* A third step in evaluating information from other sources is to determine how knowledgeable or experienced the person is in that particular area. When you seek



information from others, you try to locate people who you believe will have a special understanding of the area in which you are interested. When asking directions, you look for a policeman, a cab driver, or a resident. When seeking information in school, you try to find a school employee or another student who may be experienced in that area. When your car begins making strange noises, you search for someone who has knowledge of car engines. In each case, you try to identify a source of information who has special experience or understanding of a particular area because you believe that this person will be reliable in giving you accurate information.

Of course, there is no guarantee that the information will be accurate, even when you carefully select knowledgeable sources. Cab drivers do sometimes give the wrong directions, school personnel do occasionally dispense the wrong information, and people experienced with cars cannot always figure out the problem the first time. By seeking people who are experienced or knowledgeable rather than those who are not, however, you increase your chances of gaining accurate information. For example, suppose you are interested in finding out more information about the career you are planning to pursue. Who are some of the people you would select to gain further information? What are the reasons you would select these people? Are these sound reasons?

In seeking information from others whom you believe to be experienced or knowledgeable, it is important to distinguish between the opinions of "average" sources, such as ourselves, and the opinions of experts. Experts are people who have specialized knowledge in a particular area, based on special training and experience. If you are experiencing chest pains and your friend (who is not a doctor or nurse) tells you, "Don't worry. I've had a lot of experience with this sort of thing—it's probably just gas," you may decide to seek the opinion of an expert to confirm your friend's diagnosis. (After all, you don't want to find out the hard way that your friend was mistaken.)

Who qualifies as an expert? Someone with professional expertise as certified by the appropriate standards qualifies as an expert. For instance, you do not want someone working on your teeth just because he or she has always enjoyed playing with drills or is fascinated with teeth. Instead, you insist on someone who has graduated from dental college and has been professionally certified.

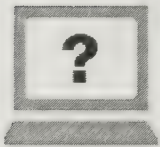
It is also useful to find out how up-to-date the expert's credentials are. Much knowledge has changed in medicine, dentistry, and automobile mechanics in the last twenty years. If practitioners have not been keeping abreast of these changes, they will have gradually lost their expertise, even though they may have an appropriate diploma. For example, identify some experts whose information and services you rely on. How could you go about discovering how up-to-date and effective their expertise is?

You should also make sure that the experts are giving you information and opinions in their field of expertise. It is certainly all right for people like Michael Jordan or Sharon Stone to give their views on a product, but you should remember that they are speaking simply as human beings (and ones who have been paid a large sum of money and told exactly what to say), not as scientific experts. This is exactly the type of mistaken perception encouraged by advertisers who want to sell their products. For example, identify two "experts" in television or magazine advertising who are giving testimony *outside* their fields of expertise. Why you think they were chosen for the particular products they are endorsing? Do you trust such expertise in evaluating the products?

Finally, you should not accept expert opinion without question or critical examination, even if the experts meet all the criteria that you have been exploring. Just because a mechanic assures you that you need a new transmission for \$900 does not mean that you should accept that opinion at face value. Or simply because one doctor assures you that surgery is required for your ailment does not mean that you should not investigate further. In both cases, seeking a second (or even third) expert opinion makes sense.

---

## LOOKING CRITICALLY @ RESEARCHING ON THE INTERNET



Until a few years ago, conducting research in college meant taking up residence in the library and developing an intimate relationship with the stacks of books and periodicals housed there. No more! The Internet has opened up whole new worlds of research information that you can visit without leaving your computer. Libraries still fill a crucial need in education, and they will continue to do so into the foreseeable future. But today many of these fine institutions are also making their references accessible via the Internet through scanning of printed matter and turning them into electronic files that students can read or download off the Web. However, it is increasingly necessary for students to also become knowledgeable and familiar with the resources found via the Internet.

Where do you begin? If you are living on campus, be aware that most colleges offer a direct link to the Internet in residence halls and libraries through connecting services like Resnet for a modest monthly charge. If you live off campus, you can use a large online service like America Online or CompuServe which, in addition to Internet access, provides services such as online news, chat rooms, and games. These services also include directories organized by various categories (academic assistance center, homework, sports, travel,

current events) that can help you locate the information you want. Online services use “Web browsers” like Netscape, AOLFind, and Microsoft Internet Explorer to help guide your travels on the Internet.

In addition to the information provided by online services, you can use tools such as *search engines* to help you find information on the Internet. Search engines are programs that search documents for specified key words and then provide you with a list of the documents where the key words can be found. Search engines like Alta Vista, Excite, WebCrawler, and Yahoo! enable users to search the Internet efficiently and locate the information they need. From the search engine’s initial home page, you have two options: First, the home page display is often laid out to provide preset categories—much as an index would—to help you find information on popular topics such as travel, reference, health, or current events. Second, you can generally type into a “search box” a word or series of words that the search engine then uses to find sites on the Web (“species” and “endangered” and “North America”) which will then automatically locate appropriate references. These may be papers that have been written about the subject, book references, the books themselves, or Web sites specifically devoted to your subject, sites which often enable you to communicate with other people. You can also “visit” various libraries and make use of the resources that they have compiled and scanned.

During searches like these, thousands of “hits” are often identified, but caution must be taken when viewing these sites. The search engine is looking for the word(s) you specified, and anyone can include these words in a linked Web page, regardless of their legitimacy or relevance. Thus, you may be looking for “fishing schools” and not only find information about schools that teach fishing but also information on nature books that have articles on actual fish! Or the link might be to a fourteen-year-old who has created his own personal home page and included *hobbies* (“I like fishing”) and *dislikes* (“I hate school”) as text on the page! So it takes time, patience, and scrutiny to browse the information you find “out there” and determine what is legitimate, what is accurate and complete, and what is just plain irrelevant or junk. The checklist in the activity “Looking Critically @ Evaluating Internet Information” in Chapter 1 can help you sift through and think critically about the avalanche of information that may be threatening to bury you. Also, many search engines offer an “advanced” search or “refine” option, which allows you to set preferences to rank in order of best “hits.”

What is the best way to know if the site you have found is valuable? Trust your instincts and double-check what you find. The various government organizations are fairly easy to identify, as are product manufacturers and universities. You can often jump right from one site to another legitimate home page by

clicking on an advertising button (for example, you can go from a search engine directly to a computer store or airline). You can often send email to a source and try to validate its authenticity in this way, or you can telephone it or search address books on the Internet to see whether it's "real." Personal references from teachers and friends, as well as direct links from an online service, are often good sources for validating sites.

Begin looking critically at researching on the Internet by engaging in the following activity. Identify two topics for research: one related to a course you are taking and another reflecting a personal interest. Use the tools just described to gather information, and use your critical thinking abilities to sift through, evaluate, and organize the information you locate. Be prepared to share what you have discovered with your classmates.

---

## SUMMARY

In this chapter we have explored the ways people form and revise beliefs. The purpose of this ongoing process of forming and revising beliefs is to develop a clear understanding of what is taking place so that you can make the most effective decisions in your life. Your ability to think critically about your beliefs guides you in asking the questions necessary to explore, evaluate, and develop your beliefs.

You use both direct and indirect experience to form and re-form your beliefs. As you evaluate beliefs based on your experience, you need to use the following criteria:

- How effectively do your beliefs *explain what is taking place?*
- To what extent are these beliefs *consistent with other beliefs* about the world?
- How effectively do your beliefs help you *predict what will happen in the future?*
- To what extent are your beliefs supported by *sound reasons and compelling evidence* derived from *reliable sources?*

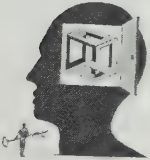
Your indirect experiences are based on outside sources of information, both spoken and written. To evaluate critically these outside sources of information, you have to ask the following questions:

- How reliable is the *information?* (How accurate and justified?)
- How reliable is the *source* of the information?



By thinking critically about the process by which you form and revise your beliefs about the world, you will be able to develop your understanding insightfully and creatively.

### **THINKING ACTIVITY 5.8**    *ANALYZING DIFFERENT ACCOUNTS OF DROPPING ATOM BOMBS ON JAPAN*



Chapter 4 emphasized the extent to which people's perceiving "lenses" shape and influence the way they see things, the conclusions they reach, and the decisions they make. Thinking critically involves becoming aware of these perceiving lenses and evaluating their validity when determining the accuracy of information and sources of information. One of the most powerful strategies for achieving this goal is to perform a comparative analysis of different perspectives. For example, one of the most controversial and still hotly debated events in U.S. history was our country's atomic bombing of the Japanese cities of Hiroshima and Nagasaki. Although the bombings ended World War II, they killed over 100,000 civilians and resulted in radiation poisoning that affected many thousands more at that time and in subsequent generations. In 1995 the Smithsonian Museum planned an exhibit to commemorate the fiftieth anniversary of the bombings, but controversy over whether the perspective of the exhibit was unbalanced led to its cancellation and the resignation of the Air and Space Museum's director.

The following activity developed by historian Kevin O'Reilly presents two contrasting analyses of this event, each supported by historical documentation. After reviewing the two accounts, answer the questions that follow.

#### **WAS THE UNITED STATES JUSTIFIED IN DROPPING ATOMIC BOMBS ON JAPAN?**

##### **Background Information**

For the United States, World War II began with a sneak attack by Japanese planes on American naval forces at Pearl Harbor. The war was fought in Europe against the Germans and their allies, and in the Pacific against the Japanese. During the war the secret Manhattan Project was commissioned to develop an atomic bomb for the United States. Germany surrendered (May 1945) before the bombs were completed, but on August 6, 1945, a single atomic bomb destroyed Hiroshima, and on the ninth, another atomic bomb destroyed Nagasaki.





*The dropping of atomic bombs on Hiroshima and Nagasaki ended World War II but also killed over 100,000 civilians and resulted in radiation poisoning that affected subsequent generations.*

In this lesson two viewpoints are presented on the controversial use of the atomic bombs. Read and evaluate them according to the criteria of critical thinking. Consider the relevant information that follows the two viewpoints.

### **Historian A**

Some historians argue that dropping atomic bombs on Japan was justified because it shortened the war, thus saving lives in the end. This view is wrong. The United States was not justified in dropping the bombs.

In the summer of 1945, the Japanese were almost totally defeated. American ships and planes pounded the island without any response by the Japanese. Leaders in Japan were trying to surrender and American leaders knew it. Several times the Japanese went to the Russians to ask

them to mediate a peace settlement with the United States.<sup>1</sup> (It is not unusual for a country that wants to surrender to ask another country to speak for it at first and help negotiate a settlement.) There was only one condition that the Japanese insisted on—they wanted to keep their emperor, the symbol of Japanese culture. The United States never even talked with the Japanese about surrender terms—American leaders kept demanding unconditional surrender. After we used the bombs and the Japanese surrendered, we let them keep their emperor anyway. We could have allowed the Japanese to surrender earlier and saved all those lives obliterated by the bombs by letting them have their one condition in the first place.

If the bombs were not used to bring about surrender, then why were they used? The plain truth is that they were used to scare Russia. In 1945 the United States disagreed with the Soviet Union in regard to Russia's actions in Europe. Our leaders felt that by showing the Russians we had a powerful weapon, we could get them to agree to our terms in Europe and Asia. As Secretary of War Stimson said in his diary, in diplomacy the bomb would be a "master card."<sup>2</sup>

President Truman had an important meeting scheduled with the Russian leader, Josef Stalin, at Potsdam, Germany, in July 1945. He wanted to have the bomb completed and successfully tested when he went into that meeting. Atomic scientist J. Robert Oppenheimer said, "We were under incredible pressure to get it [the bomb] done before the Potsdam meeting."<sup>3</sup> Truman hoped to have the bomb sticking out of his hip pocket, so to speak, when he negotiated with Stalin. Then he could make new demands of the Russians regarding eastern Europe. He told some of his friends at Potsdam before the final test, "If it explodes as I think it will, I'll certainly have a hammer on those boys."<sup>4</sup>

While Truman was negotiating in Potsdam, the bomb was successfully tested in New Mexico, and he became more demanding with Stalin. Secretary of War Stimson stated, "He [Truman] said it [the bomb] gave him an entirely new feeling of confidence. . . ."<sup>5</sup>

But the Russians had to see the power of the bomb before the United States could intimidate them with it. This was accomplished at Hiroshima. Truman remarked, "This is the greatest thing in history!"<sup>6</sup>

A second motive for dropping the bomb was to end the war in Asia before the Russians could get involved. The Japanese were talking of surrender, but the United States wanted surrender within days, not a negotiated surrender taking weeks to complete. The Russians had agreed at

Yalta to enter the war against Japan three months after the end of the war in Europe. This would be three months after May 9, or somewhere around August 9. If the Russians got involved in the war in Asia, they could spread Communism to China and other countries and possibly to Japan itself. American leaders did not want to see this happen.<sup>7</sup>

If the United States could speed up the Japanese surrender, we could avoid all these problems. We dropped the first bomb on August 6; Russia entered the war on the eighth, and we dropped the second bomb on the ninth. Don't these dates look suspicious? No country could surrender in only three days—it takes longer than that to make such an important decision. We would not wait longer because we wanted Japan to surrender before the Russians could get involved.

Some scientists who worked on the bomb recommended that it not be dropped on people. They proposed that the United States demonstrate the bomb's power to Japanese leaders by dropping it on an uninhabited island. American political leaders rejected this idea. The devastating effect of the bomb had to be shown by destroying a city.

Even top military leaders opposed the use of the atomic bomb.<sup>8</sup> The bomb would have little effect on the war, they argued, since the Japanese were already trying to surrender.

All this evidence shows that the atomic bombs were not used to end the war and save lives, but rather to scare the Russians and speed up the end of the war before Russian influence spread further into Asia. The killing of over 100,000 civilians in one country in order to scare the leaders of another country was wrong. The United States was not justified in dropping the atomic bombs.

## Endnotes for Historian A

(All are quotes from the sources cited except bracketed portions.)

<sup>1</sup> Gar Alperovitz (a historian), *Atomic Diplomacy* (1965). (Direct quotations from *Foreign Relations Papers of the United States: Conference at Berlin*, Vol. II, pp. 1249, 1250, 1260, 1261.)

"On July 17, the day of the first plenary session, another intercepted Japanese message showed that although the government felt that the unconditional surrender formula involved too great a dishonor, it was convinced that 'the demands of the times' made Soviet mediation to terminate the war absolutely essential. Further cables indicated that the one condition the Japanese asked was preservation of 'our form of government.' A message of July

25 revealed instructions to the [Japanese] Ambassador in Moscow to go anywhere to meet with [Soviet Foreign Minister] Molotov during the recess of the Potsdam meeting so as to 'impress them with the sincerity of our desire' to terminate the war. He was told to make it clear that 'we should like to communicate to the other party [the United States] through appropriate channels that we have no objection to a peace based on the Atlantic Charter.' The only 'difficult point is the . . . formality of unconditional surrender.'"

James F. Byrnes (Secretary of State), *All in One Lifetime*, p. 297:

"July 28: Secretary Forrestal arrived and told me in detail of the intercepted messages from the Japanese government to Ambassador Sato in Moscow, indicating Japan's willingness to surrender."

<sup>2</sup> Stimson (Secretary of War) Diary, May 15:

"The trouble is that the President has now promised apparently to meet Stalin and Churchill on the first of July [at Potsdam] and at that time these questions will become burning and it may become necessary to have it out with Russia on her relations to Manchuria and Port Arthur and various other parts of North China, and also the relations of China to us. Over any such tangled web of problems the S-1 secret [the atomic bomb] would be dominant and yet we will not know until after . . . that meeting, whether this is a weapon in our hands or not. We think it will be shortly afterwards, but it seems a terrible thing to gamble with such big stakes in diplomacy without having your master card in your hand."

Leo Szilard (an atomic scientist who opposed use of the bombs on Japan), Conversation with Secretary of State Byrnes. Recorded on August 24, 1944, in Stewart to Bush, Atomic Energy Commission Document 200. Manhattan Engineering District—Top Secret, National Archives, Record Group 77, Box 7, folder 12; Box 14, folder 4:

[Szilard argued that we should not use the bomb.]

"Byrnes – Our possessing and demonstrating the bomb would make Russia more manageable in Europe."

"Szilard – [The] interests of peace might best be served and an arms race avoided by not using the bomb against Japan, keeping it secret, and letting the Russians think that our work on it had not succeeded."



"Byrnes – How would you get Congress to appropriate money for atomic energy research if you do not show results for the money which has been spent already?"

<sup>3</sup> Atomic Energy Commission, Oppenheimer Hearings, p. 31.

<sup>4</sup> Jonathan Daniels (biographer), *The Man of Independence* (1950), p. 266.

<sup>5</sup> *Foreign Relations Papers of the United States: Conference at Berlin, 1945*, Vol. II, p. 1361.

Stimson Diary, July 22:

"Churchill read Grove's report [on the successful testing of the atomic bomb in New Mexico] in full. . . . He said, 'Now I know what happened to Truman yesterday. I couldn't understand it. When he got to the meeting after having read this report he was a changed man. He told the Russians just where they got on and off and generally bossed the whole meeting.'"

<sup>6</sup> Harry S. Truman, *Year of Decisions*, p. 421.

<sup>7</sup> Byrnes, *All in One Lifetime*, p. 300:

"Though there was an understanding that the Soviets would enter the war three months after Germany surrendered, the President and I hoped that Japan would surrender before then."

Secretary of War Stimson stated in his diary on August 10, 1945, that he urged the President that:

"The thing to do was to get this surrender through as quickly as we can before Russia should get down in reach of the Japanese homeland. . . . It was of great importance to get the homeland into our hands before the Russians could put in any substantial claim to occupy and help rule it."

<sup>8</sup> General Dwight Eisenhower, statement in "Ike on Ike," *Newsweek*, November 11, 1963, p. 107:

"I voiced to him [Secretary of War Stimson] my grave misgivings, first on the basis of my belief that Japan was already defeated and that dropping the bomb was completely unnecessary and secondly, because I thought our country should avoid shocking world opinion by the use of a weapon whose employment was, I thought, no longer necessary as a measure to save American lives. It was my belief that Japan was, at the very moment, seeking some



way to surrender with a minimum loss of 'face.' . . . It wasn't necessary to hit them with that awful thing."

Admiral W. D. Leahy, *I Was There* (1950), p. 441:

"It was my opinion that the use of this barbarous weapon at Hiroshima and Nagasaki was of no material assistance in our war against Japan. The Japanese were already defeated and ready to surrender."

Air Force Chief of Staff LeMay, *New York Herald Tribune*, September 21, 1945:

"The atomic bomb had nothing to do with the end of the war."

---

### Historian B

Dropping atomic bombs on Hiroshima and Nagasaki helped the United States avoid a costly invasion of Japan. It therefore saved lives in the long run, which makes it a justifiable action.

It is true that the United States received some indication in the summer of 1945 that Japan was trying to surrender. Japan would not surrender unconditionally, however, and that was very important to the United States. The Germans had not surrendered unconditionally at the end of World War I and, as a result, they rose again to bring on World War II. The United States was not going to let that mistake happen again. As President Roosevelt said, "This time there will be no doubt about who defeated whom."<sup>1</sup>

Although the Japanese military situation in July 1945 was approaching total defeat, many Japanese leaders hoped for one last ditch victory in order to get softer peace terms.<sup>2</sup> One of their hopes was to divide the Grand Alliance by getting Russia (which was not at the time at war with Japan) to be the intermediary for peace negotiations. Maybe the Allies would begin to disagree, the Japanese militarists reasoned, and Japan would get off easy. Their other hope was that they could inflict enough casualties on the American troops, or hold out long enough, to get the American public to pressure their leaders to accept something less than unconditional surrender.<sup>3</sup>

Some historians argue that the only issue which prevented the Japanese from accepting unconditional surrender was their fear that the emperor would be removed by the Americans. American leaders, however, believed that allowing this one condition would encourage the militarists in Japan to further resistance. Americans also felt that it would

weaken the war effort in the United States since we would be deviating from our well-publicized policy of unconditional surrender.<sup>4</sup>

Some Japanese leaders wanted much more, however, than just the one condition of keeping their emperor. They wanted their troops to surrender to them, and they wanted no occupation of Japan or war crimes trials of Japanese leaders. Even on August 9, after the bombing of Hiroshima and Nagasaki, and after the Russian declaration of war against them, the Japanese leaders still could not agree to surrender.<sup>5</sup> This shows that the bombs were necessary—anything less than the bombs or invasion would not have brought about unconditional surrender.

Some people believe that the dates of dropping the bombs (August 6 and 9) show that the United States dropped them to stop Russian entry into the war (August 8). There are two problems with this line of reasoning. First, the United States did not know the exact date of Russian entry. Second, the bombs were to be dropped when a military officer decided that the weather was right.<sup>6</sup> If Truman wanted to beat the Russians, why didn't he order the bombs to be dropped sooner, or why didn't he give in on unconditional surrender?

The argument that the United States dropped the bombs in order to threaten the Russians is also weak. The fact that we were so unsuccessful in getting the Russians to agree to our policies in Europe shows that the bomb was not used for that reason. It must have been used to shorten the war. It certainly did not scare the Russians.

Some American scientists opposed using the bomb on civilian or military targets, preferring to demonstrate it on an uninhabited island. This recommendation was studied carefully by a committee (the Interim Committee) set up to consider how to use the bomb. The committee said that a demonstration could have had a lot of problems, which would have wasted one of the bombs and precious time. In light of the fact that it took two bombs dropped on cities to bring about a surrender, the demonstration idea does not seem like it would have been effective. The committee recommended the bombs be used against military targets.<sup>7</sup>

It is important to remember that on July 26, 1945, the United States warned the Japanese that we would use the atomic bomb against them unless they accepted unconditional surrender.<sup>8</sup> The fanatical Japanese leaders would not give in. They said they would ignore the warning.<sup>9</sup> Thus, the loss of life from atomic bombings was the responsibility of the Japanese leaders, not the Americans.

The United States was right in insisting on unconditional surrender. Since the Japanese would not surrender unconditionally, and since a

demonstration bombing would not have been effective, the only alternative to using the atomic bombs was continuing the war. This would have cost hundreds of thousands more lives. In the long run, the use of the atomic bombs on Hiroshima and Nagasaki shortened the war and saved lives.

### Endnotes for Historian B

(All are quotes from the sources cited except bracketed portions.)

- <sup>1</sup> President Roosevelt at a press conference, *F. D. R.: Public Papers of the Presidents*, Vol. XIII, p. 210:

“Practically all Germans deny the fact they surrendered in the last war, but this time they are going to know it. And so are the Japs.”

- <sup>2</sup> *Command Decisions* (a history of World War II), p. 504, quotes a study done by Brigadier General George A. Lincoln, June 4, 1945:

“In allied intelligence Japan was portrayed as a defeated nation whose military leaders were blind to defeat. . . . Japan was still far from surrender. She had ample reserves of weapons and ammunition and an army of 5,000,000 troops, 2,000,000 of them in the home islands. . . . In the opinion of the intelligence experts, neither blockade nor bombing alone would produce unconditional surrender before the date set for invasion [November 1945]. And the invasion itself, they believed, would be costly and possibly prolonged.”

- <sup>3</sup> *Command Decisions*, p. 517:

“The militarists [in the Japanese Government] could and did minimize the effects of the bomb, but they could not evade the obvious consequences of Soviet intervention, which ended all hope of dividing their enemies and securing softer peace terms.”

- <sup>4</sup> *Command Decisions*, pp. 512–13, summarizing former Secretary of State Cordell Hull, *Memoirs*, Vol. II, p. 1593:

“[Cordell] Hull’s view . . . was the proposal [by Secretary of War Stimson to let the Japanese keep the Emperor] smacked of appeasement. . . . The proposal to retain the imperial system might well encourage resistance [by the Japanese] and have ‘terrible political repercussions’ in the United States.”

- <sup>5</sup> Robert Butow (a historian), *Japan’s Decision to Surrender* (1959), pp. 161, 163, 164. (Describing the debate among the six Japanese leaders about whether to surrender, August 9, 1945.)

"While Suzuki [Prime Minister], Togo [Foreign Minister] and Yonai [Navy Minister] were committed in varying degrees to an outright acceptance [of the Potsdam Declaration demanding unconditional surrender] on the basis of the sole reservation that the Imperial house would be maintained, Anami [War Minister], Umezu [Army Chief of Staff], and Toyoda [Navy Chief of Staff], felt quite differently. . . . What gagged these men—all true 'Samurai' bred in an uncompromising tradition—were the other points Yonai had mentioned. They wanted either to prevent a security occupation entirely or to exclude at least the metropolis of Tokyo. . . . So far as war criminals were concerned, they felt it should be Japan and not the victorious enemy who must try such cases. In effect, they also wanted to accept the surrender of their own men. . . .

"From the standpoint of making postwar rationalizations and of 'opening up the future of the country' it was psychologically vital for the Japanese army and navy to make it appear as if they had voluntarily disbanded their military might in order to save the nation and the world at large from the continued ravages of war. If they could do this, they could very easily later plant an appealing suggestion to the effect that the imperial forces of Great Japan had not really suffered defeat at all. For this reason, too, a security occupation and war crimes trials conducted by Allied tribunals had to be avoided at all costs. . . .

"Togo pointedly asked whether Japan could win the war if a collapse of the type [of negotiations] occurred. To this the military heads could only reply that although they were not certain of ultimate victory, they were still capable of one more campaign—a 'decisive' battle in the homeland. . . . The Council was deadlocked."

<sup>6</sup> Memorandum to Major General I. R. Groves from Brigadier General T. F. Farrell

Subject: Report on Overseas Operations—Atomic Bomb:

27 September 1945

"After the Hiroshima strike we scheduled the second attack for 11 August [local time]. On learning that bad weather was predicted

for that time, we reviewed the status of the assembly work for the Fat Man [the second atomic bomb], our uncompleted test program, and readiness of the planes and crews. It was determined that with an all-out effort, everything could be ready for takeoff on the early morning of 9 August [local time], provided our final test of the Fat Man proved satisfactory, which it did. The decision turned out to be fortunate in that several days of bad weather followed 9 August."

<sup>7</sup> Interim Committee report, June 1, 1945, from Harry S. Truman, *Year of Decisions*, p. 419:

"Recommend unanimously:

"1. The bomb should be used against Japan as soon as possible.

"2. It should be used against a military target surrounded by other buildings.

"3. It should be used without prior warning of the nature of the weapon."

<sup>8</sup> Proclamation for Unconditional Surrender, July 26, 1945. *Foreign Relations Papers of the United States: Potsdam Papers*, Vol. II, p. 1258:

"Section 13: We call upon the government of Japan to proclaim now the unconditional surrender of the Japanese armed forces, and to provide proper and adequate assurance of their good faith in such action. The alternative for Japan is prompt and utter destruction."

<sup>9</sup> *Foreign Relations Papers of the United States: Potsdam Papers*, Document 12518, July 28, 1945.

Japanese Prime Minister Suzuki to reporters:

"I believe the Joint Proclamation [the Potsdam Proclamation—warning Japan to accept unconditional surrender] by the three countries is nothing but a rehash of the Cairo Declaration [which also called on Japan to surrender]. As for the [Japanese] Government, it does not find any important value in it, and there is no other recourse but to ignore it entirely and resolutely fight for the successful conclusion of the war." ■



### *Questions for Analysis*

1. Describe the main arguments, reasons, and evidence that support the perspective of Historian A.
2. Describe the main arguments, reasons, and evidence that support the perspective of Historian B.
3. Imagine that you were in the position of the United States president, Harry Truman. Explain what action you would have taken with respect to the atomic bombs and explain the rationale for your decision.

# CHAPTER 6 LANGUAGE AND THOUGHT



UP TO THIS POINT in the book, we have been exploring the various ways we use our thinking abilities to make sense of the world: solving problems, working toward our goals, analyzing issues, perceiving, forming beliefs, and gaining knowledge. In all these cases, we have found that by *thinking critically* about the different ways in which we are trying to make sense of the world ("thinking about our thinking"), we can improve our thinking abilities and perform these activities more effectively.

Throughout this process, language is the tool we have been using to understand and develop our thinking. We have been

- Learning about the thinking of others through *reading*
- Expressing our own thinking through *writing*
- Exchanging ideas with others by *speaking* and *listening*

We could not develop our thinking in all these ways without the ability to use language. As you will see in the pages ahead, if we lacked the ability to use language, we would not even be able to *think* in any meaningful sense. In this chapter we focus our attention on language as a means of creating and communicating our thoughts. As you develop your skill in using language, you will at the same time improve your ability to think and make sense of the world.

---

## THE EVOLUTION OF LANGUAGE

Imagine a world without language. Imagine that you have suddenly lost your ability to speak, to write, to read. Imagine that your only means of expression are grunts, shrieks, and gestures. And finally, imagine that you soon discover that *everyone* in the world had also lost the ability to use language. What do you think such a world would be like?

As this exercise of the imagination illustrates, language forms the bedrock of your relations with others. It is the means you have to communicate your thoughts, feelings, and experiences to others, and they to you. This mutual sharing draws you together and leads to your forming relationships. Consider the social groups in your school, your neighborhood, or your community. Notice how language plays a central role in bringing people together into groups and in maintaining these groups. A loss of language would both limit the complexity of your individual relationships with others and drastically affect the entire way you live in society.

Speculation on the origin of language has excited the human imagination for ages. Herodotus, the ancient Greek, told the story of an Egyptian king who

wanted to find out which language still in use at that time might have been the parent of all other languages. In order to solve this problem, he arranged to have two newborn infants raised away from all hearing of human speech so that he would know what would be the first words of humans not influenced by others' speech. After two years, the children were heard to say *bekos*. The king asked in which language this word had meaning and learned that in Phrygian, one of the dialects spoken in Asia Minor, *bekos* meant "bread." From that point on, Phrygian was regarded as the parent language of all the languages of the world.

Today we know more than either the Egyptian king or Herodotus did about the evolution of language. We know that no single language was the parent of all languages. Rather, like people, languages belong to families. Languages in the same family share some characteristics with other members of their family, but they also demonstrate individual characteristics. We know that languages, like the human beings of whom they are a natural part, live, change, and die. Phrygian is no longer a living language; neither is Sanskrit, the ancient Indian language, nor is Latin.

English, like Spanish, French, Chinese, Urdu, or any of the other languages that you may speak, is a living language—and it has changed over hundreds of years. The English language has gone through four major evolutionary stages: *Old English*, 700–1050 A.D.; *Middle English*, 1050–1450 A.D.; *Early Modern English*, 1450–1700 A.D.; and *Modern English*, 1700 to the present. Because languages are systems based on sound, these evolutionary stages of English reflect variations in how the language sounds. It is difficult to represent these sounds accurately for the older periods of English because of the absence of cassette tapes or phonograph recordings. The written symbols demonstrating early versions of the Lord's Prayer that follow are approximations based on the consensus of linguistic scholars.

## THE LORD'S PRAYER

### Old English

Faeder ure

Thu the eart on heofonum,

Si thin name gehalgod.

Tobecume thin rice.

Gewurthe thin willa on eorthan swa swa on heofonum.

Urne gedaeghwamlican hlaf syle you to daeg.

And forgyf you urne gyltas, swa swa you forgyfath urum gyltendum.

And ne gelaed thu you on costnunge, ac alys you of yfele. Sothlice.

### Middle English

Oure fadur  
 that art in hauenes,  
 halewid be thi name;  
 thi kyngdoom come to;  
 be thi wile don in erthe as in heuene;  
 zyue to vs this dai oure breed ouer othir substaunce;  
 and forzyue to vs oure dettis, as you forzyuen to oure dettouris;  
 and lede vs not in to temptacioun,  
 but delyuere vs from yeul. Amen.

### Early Modern English

Our Father  
 which art in heaven,  
 hallowed be thy name.  
 Thy kingdom come.  
 They will be done, in earth, as it is in heaven.  
 Give us this day our daily bread.  
 And forgive us our debts, as we forgive our debtors.  
 And lead us not into temptation,  
 but deliver us from evil:  
 for Thine is the kingdome, and the power, and the glory for ever, Amen.

As you read these versions of the Lord's Prayer, think about the variations in sounds, words, and sentences. With the other members of your class, discuss variations in the language(s) you speak. Could any of these be considered evolutionary changes? Why or why not?

---

## THE SYMBOLIC NATURE OF LANGUAGE

As human beings, we are able to share our thoughts and feelings with each other because of our ability to *symbolize*, or let one thing represent something else. Words are the most common symbols we use in our daily life. Although words are only sounds or written marks that have no meaning in and of themselves, they stand for objects, ideas, and other aspects of human experience. For example, the word *sailboat* is a symbol that represents a watergoing vessel with sails that is propelled by the wind. When you speak or write *sailboat*, you are able to communicate the sort of thing you are thinking about. Of course, if other



people are to understand what you are referring to when you use this symbol, they must first agree that this symbol (*sailboat*) does in fact represent that wind-propelled vessel that floats on the water. If others do not agree with you on what this symbol represents, then you will not be able to communicate what you would like to. Naturally, you could always take others to the object you have in mind and point it out to them, but using a symbol instead is much more convenient.

Language symbols (or words) can take two forms; they can be spoken sounds or written markings.\* The symbol *sailboat* can be either written down or spoken aloud. Either way, it will communicate the sort of thing you are referring to, provided that others share your understanding of what the symbol means.

Since using language is so natural to us, we rarely stop to realize that our language is really a system of spoken sounds and written markings that we use to represent various aspects of our experience. These sounds and markings enable us to communicate our thoughts and feelings to others, based on a shared understanding of what the sounds and markings symbolize.

**Language** A system of symbols for thinking and communicating

In certain respects, language is like a set of symbolic building blocks. The basic blocks are sounds, which may be symbolized by letters:

Letters — A T C Q Y N, etc.—symbolize sounds.

Sounds form the phonetic foundation of a language, and this process explains why different languages have such distinctly different “sounds.” Try having members of the class who speak other languages speak a word or a few sentences in the language. Listen to how the sound of each language differs from those of the others. When humans are infants, they are able to make all the sounds of all languages. As they are continually exposed to the specific group of sounds of their society’s language, they gradually concentrate on making only those sounds while discarding or never developing the others.

Sounds combine to form larger sets of blocks called words. Words are used to represent the various aspects of our experience—they symbolize

\* A unique language case is posed by American Sign Language (ASL), which is now regarded by linguists as a full-fledged language, possessing its own grammar and syntax.

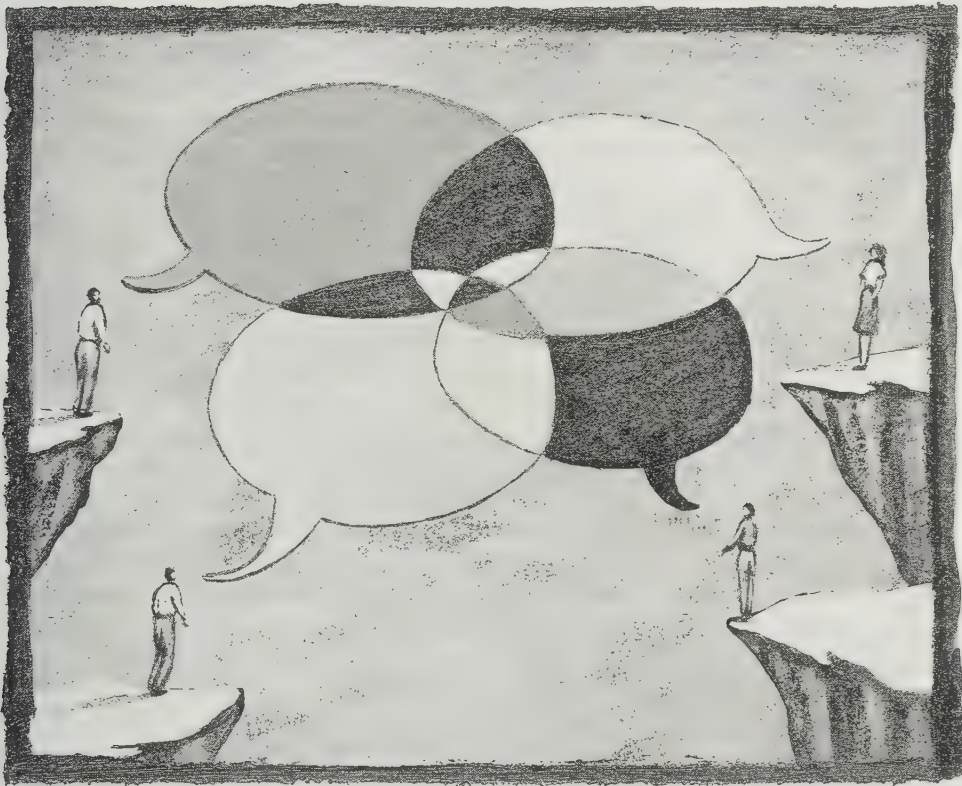
objects, thoughts, feelings, actions, and concepts. When you read, hear, or think about a word, then it usually elicits in you a variety of ideas and feelings. Describe the ideas or feelings that the following words arouse in you: *college education, happiness, freedom, creative, love*.

The combination of all the ideas and feelings that a word arouses in your mind comprises the “meaning” of that word to you. For instance, the ideas and feelings that you just described reflect the meaning that each of those words has for you as an individual. And although the meanings that these words have for you is likely to be similar in many respects to the meanings they have for other people, there are also many differences. Consider the different meanings these words have for the two people in the following dialogue:

- A: For me, a **college education** represents the most direct path to my dreams. It’s the only way I can develop the knowledge and abilities required for my career.
- B: I can’t agree with you. I pursued a **college education** for a while, but it didn’t work out. I found that most of my courses consisted of large classes with professors lecturing about subjects that had little relation to my life. The value of a college education is overblown. I know many people with college degrees who have not been able to find rewarding careers.
- A: Don’t you see? An important part of achieving **happiness** is learning about things you aren’t familiar with, expanding your horizons about the world, developing new interests. That’s what college can give you.
- B: I have enough interests. As far as I’m concerned, **happiness** consists of having the opportunity to do the things that I enjoy doing with the people I enjoy doing them with. For me, happiness is **freedom**!
- A: **Freedom** to do what? Freedom is meaningful only when you have worthwhile options to select and the wisdom to select the right ones. And a college education can help provide you both!
- B: That sounds very idealistic, but it’s also naive. Many of the college graduates I have met are neither wise nor happy. In order to be truly happy, you have to be involved in **creative** activities. Every day should be a surprise, something different to look forward to. Many careers pay well, but they don’t provide creative opportunities.
- A: Being **creative** means doing things you **love**. When you really love something you’re doing, you are naturally creative. For example, I love to draw and paint, and these activities provide a creative outlet for me. I don’t need to be creative at work—I have enough creative opportunities outside of work.

B: You're wrong! **Creativity** doesn't simply mean being artistic. We should strive to be creative in every part of our lives, keep looking for new possibilities and unique experiences. And I think that you are misusing the word *love*. You can only really love things that are alive, like people and pets.

A: That's a very weird idea of **love** you have. As far as I'm concerned, love is a word that expresses a strong positive emotion that can be directed toward objects ("I love my car"), activities ("I love to dance"), or people. I don't see what's so complicated about that.



*Words are complex carriers of meaning that evoke in people a variety of ideas and feelings. Some meanings people share, forming the basis of communication, while other meanings vary from person to person.*

- B: To be able to **love** in any meaningful sense, the object of your love has to be able to respond to you, so that the two of you can develop a relationship together. When was the last time that your car responded to your love for it?
- A: Very funny. I guess that we just have different ideas about the word **love**—as well as the words **happiness**, **freedom**, and **creative**.

As this dialogue suggests, words are not simple entities with one clear meaning that everyone agrees on. Instead, most words are complex, multidimensional carriers of meaning; their exact meaning often varies from person to person. These differences in meaning can lead to disagreements and confusion, as illustrated in the previous dialogue. To clarify your understanding about the way words function in your language and your thinking, you have to examine the way words serve as vehicles to express meaning.

Words arouse in each of us a variety of ideas, feelings, and experiences. Taken together, these ideas, feelings, and experiences express the *total meaning* of the words for the individual person. Linguists believe that this total meaning is actually composed of four different types of meaning:

- Semantic meaning
- Perceptual meaning
- Syntactic meaning
- Pragmatic meaning

Let us examine each of them in turn.

## *Semantic Meaning*

The *semantic meaning* of a word expresses the relationship between a linguistic event (speaking or writing) and a nonlinguistic event (an object, idea, or feeling). For example, saying “chair” relates to an object you sit in, while saying “college education” relates to the experience of earning an academic degree through postsecondary study. What events (ideas, feelings, objects) relate to the word *happiness*? *Freedom*? *Creative*? *Love*?

The semantic meaning of a word expresses the general properties of the word, and these properties determine how the word is used within its language system. How do you discover the general properties that determine word usage? Besides examining your own knowledge of the meaning and use of words, you can also check dictionary definitions. Dictionary definitions tend to focus on the general properties that determine word usage. For example, a dictionary definition of *chair* might be “a piece of furniture consisting of a seat, legs, and back, and often arms, designed to accommodate one person.”



However, to understand clearly the semantic meaning of a word, you often need to go beyond defining its general properties to identifying examples of the word that embody those properties. If you are sitting in a chair or can see one from where you are, examine its design. Does it embody all the properties identified in the definition? (Sometimes unusual examples embody most, but not all, of the properties of a dictionary definition—for example, a “beanbag chair” lacks legs and arms.) If you are trying to communicate the semantic meaning of a word to someone, it is generally useful to provide both the general properties of the word and examples that embody the general properties. For example, identify the general properties and examples for the following words: *happiness, freedom, creative, love*.

### *Perceptual Meaning*

The total meaning of a word also includes its perceptual meaning. The *perceptual meaning* of a word expresses the relationship between a linguistic event and an individual’s consciousness. For each of us, words elicit unique and personal thoughts and feelings based on previous experiences and past associations. For example, I might relate saying “chair” to my favorite chair in my living room or the small chair that I built for my daughter. Perceptual meaning also includes an individual’s positive and negative responses to the word. When you read or hear the word *book*, for example, what positive or negative feelings does it arouse in you? What about the word *textbook*? *Mystery book*? *Comic book*? *Cook-book*? In each case, the word probably elicited distinct feelings in your mind, and these feelings contribute to the meaning each word has for you.

Think about the words you considered earlier and describe what personal perceptions, experiences, associations, and feelings they evoke in your mind: *college education, happiness, freedom, creative, love*.

### *Syntactic Meaning*

A third component of a word’s total meaning is its syntactic meaning. The *syntactic meaning* of a word defines its relation to other words in the sentence. Syntactic relationships extend among all the words of the sentence that are spoken or written, or which will be spoken or written. The syntactic meaning defines three relationships among words:

- Content: words that express the major message of the sentence
- Description: words that elaborate or modify the major message of the sentence
- Connection: words that join the major message of the sentence



For example, in the sentence “The two novice hikers crossed the ledge cautiously,” *hikers* and *crossed* represent the content, or major message, of the sentence. *Two* and *novice* define a descriptive relationship to *hikers*, and *cautiously* defines a descriptive relationship to *crossed*. At first, you may think that this sort of relationship among words involves nothing more than semantic meaning. The following sentence, however, clearly demonstrates the importance of syntactic meaning in language: “Invisible fog rumbles in on lizard legs.” Although *fog* does not *rumble*, and it is not *invisible*, and the concept of moving on *lizard legs* instinctively seems incompatible with *rumbling*, still the sentence “makes sense” at some level of meaning—namely, at the syntactic level. One reason it does is that, in this sentence, you still have three basic content words—*fog*, *rumbles*, and *legs*—and you also have two descriptive words, namely, *invisible* and *lizard*.

The third major syntactic relationship is that of connection. You use connective words to join ideas, thoughts, or feelings being expressed. For example, you could connect content meaning to either of your two sentences in the following fashion:

- “The two novice hikers crossed the ledge cautiously after one of them slipped.”
- “Invisible fog rumbles in on lizard legs, but acid rain doesn’t.”

When you add content words such as *one slipped* and *rain doesn’t*, you join the ideas, thoughts, or feelings they represent to the earlier expressed ideas, thoughts, or feelings (*hikers crossed* and *fog rumbles*) by using connective words like *after* and *but*, as in the previous sentences.

The second reason that “invisible fog rumbles in on lizard legs” makes sense at the syntactic level of meaning is that the words of that sentence obey the syntax, or order, of English. Most speakers of English would have trouble making sense of “Invisible rumbles legs lizard on fog in”—or “Barks big endlessly dog brown the,” for that matter. Because of syntactic meaning, each word in the sentence derives part of its total meaning from its combination with the other words in that sentence in order to express and join ideas, thoughts, and feelings. Look at the following sentences and explain the difference in meaning between each pair of sentences:

- 1a. The process of achieving an education at college changes a person’s future possibilities.
- 1b. The process of achieving a *college education* changes a person’s future possibilities.

- 2a. She felt *happiness* for her long-lost brother.
- b. She felt the *happiness* of her long-lost brother.
- 3a. The most important thing to me is *freedom from* the things that restrict my choices.
- b. The most important thing to me is *freedom to* make my choices without restrictions.
- 4a. Michelangelo's painting of the Sistine Chapel represents his *creative* genius.
- b. The Sistine Chapel represents the *creative* genius of Michelangelo's greatest painting.
- 5a. I *love* the person I have been involved with for the past year.
- b. I am *in love* with the person I have been involved with for the past year.

## Pragmatic Meaning

The fourth element that contributes to the total meaning of a word is its pragmatic meaning. The *pragmatic meaning* of a word involves the person who is speaking and the situation in which the word is spoken. For example, the sentence "That student likes to borrow books from the library" allows a number of pragmatic interpretations:

- 1. Was the speaker outside looking at *that student* carrying books out of the library?
- 2. Did the speaker have this information because he was a classmate of *that student* and didn't see her carrying books?
- 3. Was the speaker in the library watching *that student* check the books out?

The correct interpretation or meaning of the sentence depends on what was actually taking place in the situation—in other words, its pragmatic meaning. For example, describe a pragmatic context for each of the following sentences that identifies the person speaking and the situation in which it is being spoken.

- 1. A *college education* is currently necessary for many careers that formerly only required high school preparation.
- 2. The utilitarian ethical system is based on the principle that the right course of action is that which brings the greatest *happiness* to the greatest number of people.
- 3. The laws of this country attempt to balance the *freedom* of the individual with the rights of society as a whole.

4. "You are all part of things, you are all part of *creation*, all kings, all poets, all musicians, you have only to open up, to discover what is already there."  
(Henry Miller)
5. "If music be the food of *love*, play on." (William Shakespeare)

After completing the activity, compare your answers with those of your classmates. In what ways are the answers similar or different? Analyze the way different pragmatic contexts (persons speaking and situations) affect the meanings of the italicized words.

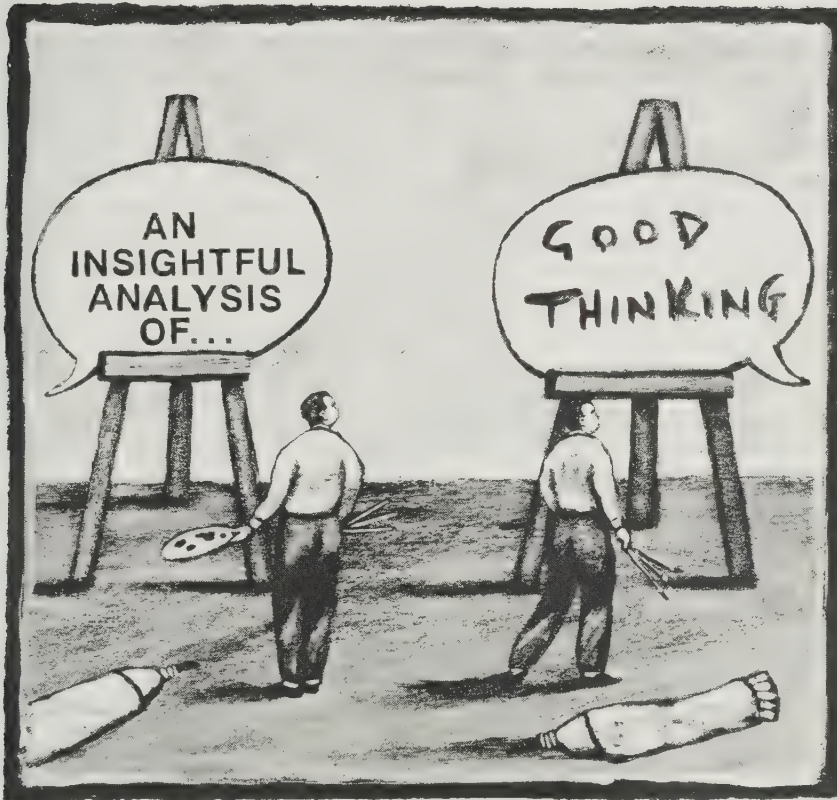
The four meanings you just examined—semantic, perceptual, syntactical, pragmatic—create the total meaning of a word. That is to say, all the dimensions of any word—all the relationships that connect linguistic events with nonlinguistic events, your consciousness, other linguistic events, and situations in the world—make up the meaning *you* assign to a word.

---

## SENTENCE MEANING

It is said that the word is the basic element of language, and you have just discussed the importance of word meaning to language. Word meaning is important to your ability to organize experience and express concepts. But you rarely use single words alone. "Oh!" or "Help!" may be exceptions, but when you use even those words alone, the pragmatic meaning (or situation) is usually unmistakable. That is why you could argue that the *sentence*, not the word, is the basic unit of speech.

When you relate concepts and ideas to each other, and when you speak or write about events, you use sentences that may be combined in a variety of structural combinations, or in other words, *grammatical constructions*. You may have learned to think of grammar as "how you should speak or write." In this view, known as *prescriptive grammar*, "grammar" is an artificial mechanism that prescribes speakers' and writers' use of language. In contrast to prescriptive grammar, *descriptive grammar* reflects the structure of natural language—the way we actually use language in our everyday lives. Because language and thinking are so closely related, the knowledge about language that descriptive grammar provides is essentially related to the structure of thinking. As a result, the process of becoming a sophisticated thinker is integrally involved in the process of mastering the complex structure of language.



*The syntax of language shapes and forms our thoughts, relating one idea to others so that their combinations, many and varied, can create meaning that no one idea could convey alone.*

### ***Sentence Units: Verb Phrases and Noun Phrases***

Natural language sentences are made up of *sentence units* that can be arranged in a variety of patterns. The sentences may

- Stand alone (in *simple sentence* construction)
- Combine in a linear fashion (in *coordinate* construction)
- Combine hierarchically (in *subordinate* construction)

Each sentence unit is made up of two basic structural units: *verb phrases* and *noun phrases*.



Verb phrases consist of the verb, the representative of action or existence. For example, the verb phrase in the simple sentence unit "I swim" is *swim*. The verb phrase also includes all the words that help describe or clarify the meaning represented by the verb. That means that in the simple sentence unit "I swim in the summer," the verb phrase includes the group of words *in the summer* along with the verb *swim*.

Noun phrases consist of the noun, the representative of people and objects. Noun phrases also include all the words that describe or add to the meaning of the noun. In the simple sentence unit "I swim," the noun phrase includes only *I*. The same is true for the simple sentence unit "I swim in the summer." If we add the group of words *My friend and* to make the simple sentence unit "My friend and I swim in the summer," then the noun phrase becomes *My friend and I*.

### *Simple Sentences*

We mentioned that sentence units, made up of noun phrases and verb phrases, combine in three major constructions or forms: *simple*, *coordinate*, or *subordinate*. The sentence forms we use when we speak or write reflect the connections of our thoughts, and these connections are influenced by the context in which they occur. These sentence forms also influence the connections of the thoughts, of our listeners and readers. As an example, in the course of our discussion, the following situation narrated by a traveler will be explained from three perspectives. These perspectives illustrate the varying relationships of simple, coordinate, and subordinate sentence forms with patterns of thinking. Here is the first version:

It was Memorial Day and a lovely time to take a leisurely trip up the coast. I looked forward to the relaxing prospect of browsing around the lazy town and maybe catching an old-time parade. As I drove along the scenic route, dividing my attention between the gentle curves of the road and the spectacular view to my right, I came upon a police car blocking the road. The officer standing outside his vehicle flagged me off the road.

"Stop right here. No traffic's goin' through," he told me.

"I just want to get into town."

"Then park yer car over there." (He pointed.) "Walk down that street. Take yer first right. Then take a left. You'll be standing in Dock Square."

"Okay."

"Wait a minute, ma'am. Let me see yer handbag."

"What?"



“Well, he’s givin’ a speech in the square in just about an hour. We’ve got to check everything.” (He smiled.) “Hurry up now. You’ll miss the whole thing.”

In this account, the officer’s “explanation” consists of *simple* sentences, with the exception of “We’ve got to check everything.” The simple sentence contains only one *sentence unit*, that is, one noun phrase and one verb phrase. Remember that both the noun phrase and the verb phrase may contain a number of words (and phrases) that enhance the meaning of the noun—as in *your first right*—or the verb—as in *givin’ a speech in the square*.

## Coordinate and Subordinate Sentences

Language is rich and complex. Usually, sophisticated speakers don’t think or write only in simple sentences; they use more complex types of sentences as well. Although language and thinking are distinct processes, they are closely and inextricably intertwined at an early stage of development. As a result, complexity of language goes hand in hand with complexity of thought. Combining sentences in complex and varied ways encourages thinking that joins and juxtaposes thoughts and ideas from various perspectives.

*Coordinate sentences* and *subordinate sentences* are the two types of complex sentence structures that the English language uses, and they are common in both our speech and writing. Coordinate sentences and subordinate sentences both include more than one sentence unit, composed of a noun phrase and verb phrase. The difference between these two major sentence types is the way in which the sentence units are connected to each other.

In *coordinate sentences*, neither sentence unit is more important or carries more weight in terms of the meaning of the whole sentence. Here are some examples:

- Our dog’s name is Harry, but we didn’t name him.
- Harry loves dog biscuits, and he eats them daily.

Let’s see how coordinate sentence construction works in the continuing narrative of our traveler’s situation.

It was only a couple of minutes before I reached the center of town and spied an appealing little restaurant, a sign proclaiming “Allison’s” over it—a perfect place for a much-needed cup of coffee. As I made myself comfortable at a small window table, I began to absorb the conversation going on around me:

"I heard Hillary put 'im up to it, and Barbara's mad as a wet hen."

"Well, you know George. He's generous with his invitations, but he never thought he'd hafta honor this one."

"Well, they're gonna be heah now, and George will hafta play second fiddle this weekend."

"Ayuh. Same as he did last Novemba, and he can just like it or lump it!"

The conversation between local residents that our traveler overheard was composed largely of coordinate sentences such as "Well, they're gonna be heah now, and George will hafta play second fiddle this weekend" and "I heard Hillary put 'im up to it, and Barbara's mad as a wet hen." Just as in the case of the simple sentence, the degree of description in the noun or verb phrase has nothing to do with making a sentence coordinate. A sentence is a coordinate sentence if it contains two or more sentence units that carry the same weight in the meaning of the entire sentence.

Coordinate sentence construction is often used to express a number of important thinking patterns:

- *Chronological* thinking patterns: relating events in time sequence
- *Process* thinking patterns: relating aspects of the growth, development, or change of an act, event, or object
- *Comparative* thinking patterns: relating things in the same general category in terms of their similarities and dissimilarities
- *Analogical* thinking patterns: relating things belonging to different categories in terms of each other

The following chart describes some of the language-thinking links between these syntactic patterns and thinking patterns:

<i>Syntactic Patterns:</i>	<i>Language-Thinking Links (Connectors):</i>	<i>Thinking Patterns:</i>
Sentence coordination	<i>and, or, but, nor, either, neither, like, as, -er, more, similar to</i>	Chronological, process, comparative, analogical

In *subordinate* sentences, two or more sentence units are joined in hierarchical relationships; that is, one sentence unit is considered to be more important

to the meaning being expressed than the other sentence unit. One of the sentence units always carries the main idea or meaning of the sentence, whereas the other sentence units add to or modify that meaning.

- *When* we got our dog, his name was Harry.
- Harry is happy *if* we give him dog biscuits daily.

When we *subordinate* sentence units, we are relating ideas so closely that they rely on each other to express the full meaning of the sentence—the entire meaning that the speaker or writer wants to convey. When we use subordinate sentences, we reveal the relationships of our thoughts to each other in a specific way, just as we do with simple and coordinate sentences. In other words, our syntax reflects and influences our thinking processes.

Let's examine the final explanation of the roadblock situation faced by our traveler—this time in *subordinate* sentence form.

—Hillary? Barbara? George? Then it clicked. This was Kennebunkport, the location of the president's summerhouse. He must have come "Down East" and invited the new White House residents as his guests. Although as I left Allison's I could catch only a glimpse of a black limousine winding through Dock Square, I could recognize my situation in the article in the next day's local newspaper.

#### RESIDENTS AND TOURISTS CRAM K'PORT FOR MEMORIAL

When media hype hit Kennebunkport during George Bush's first presidential summer at Walker's Point, it drew even more vacationers than usual to a town that has catered to tourists since the turn of the century. When George Bush lost the presidential election to Bill Clinton, the town resigned itself to a return to normalcy. This weekend will undoubtedly stand out as its "Last Hurrah." Kennebunkport police officer William Redman noted that traffic this weekend suggests the Clintons' visit marks a historical event.

Monday morning, authorities blocked off roads so that no one would know which route Clinton was taking to Dock Square, where he was scheduled to deliver the annual Memorial Day address. Increased concern with security required all those who wanted to observe the holiday in town to have their handbags and packages examined after parking their cars outside the commercial area. Despite minor inconvenience, all went smoothly, and townfolk and visitors alike seemed to appreciate presidential participation in a long-standing local tradition.

A sentence like "Increased concern with security required all those who wanted to observe the holiday in town to have their handbags and packages examined after parking their cars outside the commercial area" is subordinate because it is composed of sentence units that, although dependent on each other to express the full meaning of the sentence, are unequal in importance.

Connections among sentence units in subordinate sentences often reflect a number of important thinking concepts.

- Time concepts: relating things in time sequence
- Condition concepts: relating events when the occurrence of one event depends on the occurrence of another event
- Causal concepts: relating events in terms of the way some event(s) are responsible for bringing about other event(s)

In the sentence we are examining, for example, the sentence unit "who wanted to observe the holiday in town" reflects a *condition* on "having their handbags and packages examined," whereas the sentence unit "after parking their cars outside the commercial area" reflects an element of *time* related to "having their handbags and packages examined." If the sentence had read, "People going into town had to have their handbags and packages examined because the police were concerned about security," the sentence unit beginning with the word *because* would have reflected an element of *cause*. The following chart demonstrates the language-thinking links between subordinate linguistic forms and thinking patterns.

<i>Syntactic Patterns:</i>	<i>Language-Thinking Links (Connectors):</i>	<i>Thinking Patterns:</i>
S Subordination <i>Time</i>	when, until, after, before, since	Chronological, process
S Subordination <i>Condition</i>	when, until, unless, if	Comparative, analogical
S Subordination <i>Cause</i>	because, so, so that, since	Causal

Sentence subordination is particularly important because whenever we change a *connector* (language-thinking link) or change the order of a sentence unit, the



focus of meaning and thinking expressed by the sentence also changes. Review the three accounts of the Kennebunkport traveler and analyze them by answering these questions:

- How do the various syntactic forms influence the thoughts and actions expressed?
- What thinking patterns are linked to each of the different accounts?

We have just examined some of the interrelationships between syntactic patterns and thinking patterns. Earlier in the chapter we discussed the connection among types of word meaning and the ideas, feelings, and experiences being expressed. Besides syntax and word choice, vocal signals such as emphasis, pausing, and inflection offer strong support to meaning. Even a single word like “Oh!” can be spoken to suggest a number of meanings. The same is true of simple sentences. For example, the question “Where is the waiter?” asked in a restaurant can convey a variety of thoughts depending on the emphasis the speaker places on the individual words and her inflection of the question. In coordinate and subordinate sentences, emphasis, pausing, and inflection signals help clarify meaning and make it precise, and in this way vocal attributes contribute to linking syntactic and thinking patterns. These links complete the holistic process of thought and language connection.

---

## USING LANGUAGE EFFECTIVELY

To develop your ability to use language effectively to communicate your thoughts, feelings, and experiences, you have to understand how language functions when it is used well. One way to do this is to read widely. By reading as much good writing as you possibly can, you get a “feel” for how language can be used effectively. You can get more specific ideas by analyzing the work of highly regarded writers, who use semantic and syntactical meanings accurately. They also often use many action verbs, concrete nouns, and vivid adjectives to communicate effectively. By doing so, they appeal to your senses and help you understand clearly what is being communicated. Good writers may also vary sentence length to keep the reader’s attention and create a variety of sentence styles to enrich meaning. An equally important strategy is for you yourself to write and then have others evaluate your writing and give you suggestions for improving it. You will be using both of these strategies in the pages that follow.



**THINKING PASSAGE** *BLUE HIGHWAYS*

The following selection is from *Blue Highways*, a book written by a young man of Native American heritage named William Least Heat Moon. After losing his teaching job at a university and separating from his wife, he decided to explore America. He outfitted his van (named "Ghost Dancing") and drove around the country using back roads (represented on the maps by blue lines) rather than superhighways. During his travels, he saw fascinating sights, met intriguing people, and developed some significant insights about himself. Read the passage carefully and then do Thinking Activity 6.1.

**FROM BLUE HIGHWAYS**

by William Least Heat Moon

Back at Ghost Dancing, I saw a camper had pulled up. On the rear end, by the strapped-on aluminum chairs, was something like "The Wandering Watkins." Time to go. I kneeled to check a tire. A smelly furry white thing darted from behind the wheel, and I flinched. Because of it, the journey would change.

"Harmless as a stuffed toy." The voice came from the other end of the leash the dog was on. "He's nearly blind and can't hear much better. Down just to the nose now." The man, with polished cowboy boots and a part measured out in the white hair, had a face so gullied even the Soil Conservation Commission couldn't have reclaimed it. But his eyes seemed lighted from within.

"Are you Mr. Watkins?" I asked.

"What's left of him. The pup's what's left of Bill. He's a Pekingese. Chinese dog. In dog years, he's even older than I am, and I respect him for that. We're two old men. What's your name?"

"Same as the dog's."

"I wanted to give him a Chinese name, but old what's-her-face over there in the camper wouldn't have it. Claimed she couldn't pronounce Chinese names. I says, 'You can't say Lee?' She says, 'You going to name a dog Lee?' 'No,' I says, 'but what do you think about White Fong?' Now, she's not a reader unless it's a beauty parlor magazine with a Kennedy or Hepburn woman on the cover, so she never understood the name. You've read your Jack London, I hope. She says, 'When I was a girl we had a horse called William, but that name's too big for that itty-bitty dog. Just call him Bill.' That was that. She's a woman of German descent and a decided person. But when old Bill and I are out on our own, I call him White Fong."

Watkins had worked in a sawmill for thirty years, then retired to Redding; now he spent time in his camper, sometimes in the company of Mrs. Watkins.

"I'd stay on the road, but what's-her-face won't have it."

As we talked, Mrs. What's-her-face periodically thrust her head from the camper to call instructions to Watkins or White Fong. A finger-wagging woman, full of injunctions for man and beast. Whenever she called, I watched her, Watkins watched me, and the dog watched him. Each time he would say, "Well, boys, there you have it. Straight from the back of the horse."

"You mind if I swear?" I said I didn't. "The old biddy's in there with her Morning Special—sugar doughnut, boysenberry jam, and a shot of Canadian Club in her coffee. In this beauty she sits inside with her letters.

"What kind of work you in?" he asked.

That question again. "I'm out of work," I said to simplify.

"A man's never out of work if he's worth a damn. It's just sometimes he doesn't get paid. I've gone unpaid my share and I've pulled my share of pay. But that's got nothing to do with working. A man's work is doing what he's supposed to do, and that's why he needs a catastrophe now and again to show him a bad turn isn't the end, because a bad stroke never stops a good man's work. Let me show you my philosophy of life." From his pressed Levi's he took a billfold and handed me a limp business card. "Easy. It's very old."

The card advertised a cafe in Merced when telephone numbers were four digits. In quotation marks was a motto: "Good Home Cooked Meals."

"'Good Home Cooked Meals' is your philosophy?"

"Turn it over, peckerwood."

Imprinted on the back in tiny, faded letters was this:

I've been bawled out, balled up, held up, held down, hung up, bulldozed, blackjacked, walked on, cheated, squeezed and mooched; stuck for war tax, excess profits tax, sales tax, dog tax, and syntax, Liberty Bonds, baby bonds, and the bonds of matrimony, Red Cross, Blue Cross, and the double cross; I've worked like hell, worked others like hell, have got drunk and got others drunk, lost all I had, and now because I won't spend or lend what little I earn, beg, borrow or steal, I've been cussed, discussed, boycotted, talked to, talked about, lied to, lied about, worked over, pushed under, robbed, and damned near ruined. The only reason I'm sticking around now is to see WHAT THE HELL IS NEXT.

"I like it," I said.

"Any man's true work is to get his boots on each morning. Curiosity gets it done about as well as anything else." ■

### THINKING ACTIVITY 6.1 COMMUNICATING AN EXPERIENCE



After reading the passage from *Blue Highways*, create your own description of an experience you have had. Try to use language to communicate as effectively as possible the thoughts, feelings, and experiences you are trying to share. ◀

#### Equal to a Pebble

by Roberto Obregon

Translated by Zoe Anglesey

Words, when exposed to air  
grow like calves.  
Over the years they mature and increase in value  
or they may be stillborn.  
Either one.

The word reveals to us  
what constitutes the spirit.  
It's a very delicate thing.

In the mouth of a liar  
it exposes to the bone  
a thankless soul.

The word, equal to nuclear power  
in good hands can save lives.  
If not, it amounts to doomsday  
in a darkened conscience.

By impact on a word alone  
a Hollywood star can fall from grace.  
Tyrants fear it  
and the guilty prefer not to use it.

Like coins we drop words  
into the mind of a child  
so that with time  
the thinking will be a storehouse of riches.

The word is the most precious of gems  
we give to our loved ones  
so they believe and confide in us.  
If love falls apart it's proof we lie.

A moist word, vital like earth  
whispers in the hush of silence  
and true it can soothe, be lusty  
or instrumental to a plan that urges on a nation.

Sure. People live not by bread alone.  
The word also offers sustenance  
being what it is:  
product of my hands, and yours,  
And no such things!

---

## USING LANGUAGE TO CLARIFY YOUR THINKING

Every time you use language, you send a message about your thinking. We have just examined in some detail the creature we call *language*. You have seen that it is composed of small cells, or units, pieces of sound that combine to form larger units called *words*. When words are combined into groups allowed by the rules of the language to form sentences, the creature grows by leaps and bounds. Various types of sentence structure not only provide multiple ways of expressing the same ideas, thoughts, and feelings, but also help to structure those thoughts, weaving into them nuances of focus. In turn, your patterns of thinking breathe life into language, giving both processes power.

Language is a tool, then, powered by patterns of thinking. With its power to represent your thoughts, feelings, and experiences symbolically, language is the most important tool your thinking process has. Although research shows that thinking and communicating are two distinct processes, these two processes are so closely related that they are often difficult to separate or distinguish.\*

For example, when you speak or write, you are not simply making sounds or writing symbols; you are using language to communicate your thinking by

---

\* Seminal works on this topic are *Thought and Language*, by Lev Vygotsky, and *Cognitive Development: Its Cultural and Social Foundation*, by A. R. Luria.

conveying ideas, sharing feelings, and describing experiences. When you read, you are actively using your mind to comprehend the thinking of others. At the same time, the process of using language generates ideas, and the language you (or others) use shapes and influences your thinking. In short, the development and use of your thinking abilities is closely tied to the development and use of your language abilities—and vice versa.

Thinking and communicating in language enable you to identify, represent, and give form to your thoughts, feelings, and experiences. By representing your thoughts, feelings, and experiences, you can share them with others who use the same language system. The key to effective thinking and communication, however, lies in using language clearly and precisely, a vital requirement if other people are going to be able to understand the thoughts you are trying to communicate. At the same time, using language clearly and precisely leads in turn to clear and precise thinking.

Because language and thinking are so closely related, how well you perform one process is directly related to how well you perform the other. In most cases, when you are thinking clearly, you are able to express your ideas clearly in language. For instance, try to develop a clear and precise thought about a subject you are familiar with and express this thought in language. On the other hand, if you are *not* able to develop a clear and precise idea of what you are thinking about, then you will have great difficulty in expressing your thinking in language. When this happens, you may say something like this:

“I know what I want to say, but I just can’t find the right words.”

Of course, when this happens, you usually *don’t* “know” exactly what you want to say—if you did, you would say it! When you have unclear thoughts, it is usually because you lack a clear understanding of the situation or you do not know the right language to give form to these thoughts. When your thoughts are truly clear and precise, this means that you know the words to give form to these thoughts and so are able to express them in language.

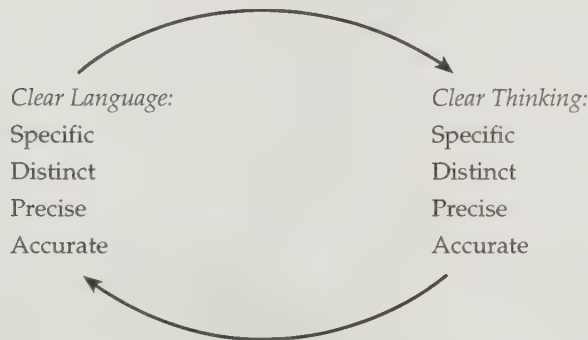
The relationship between thinking and language is *interactive*; both processes are continually influencing each other in many ways. This is particularly true in the case of language, as the writer George Orwell points out in the following passage from his classic essay “Politics and the English Language”:

A man may take to drink because he feels himself to be a failure, and then fail all the more completely because he drinks. It is rather the same thing that is happening to the English language. It becomes ugly and inaccurate because our thoughts are foolish, but the slovenliness of our language



makes it easier for us to have foolish thoughts. The point is that the process is reversible. Modern English, especially written English, is full of bad habits which spread by imitation and which can be avoided if one is willing to take the necessary trouble. If one gets rid of these habits one can think more clearly.

Just as the drunk falls into a vicious cycle that keeps getting worse, so too can language and thinking. When your use of language is sloppy—that is, vague, general, indistinct, imprecise, foolish, inaccurate, and so on—it leads to thinking of the same sort. And the reverse is also true. Clear and precise language leads to clear and precise thinking:



## *Vague Language*

Although our ability to name and identify gives us the power to describe the world in a precise way, we often do not use words that are precise. Instead, we tend to describe the world using words that are very imprecise and general. Such general and nonspecific words are called *vague* words. Consider the following sentences:

- I had a *nice* time yesterday.
- That is an *interesting* book.
- She is an *old* person.

In each of these cases, the italicized word is vague because it does not give a precise description of the thought, feeling, or experience that the writer or speaker is trying to communicate. A word (or group of words) is vague if its meaning is not clear and distinct. That is, vagueness occurs when a word is

used to represent an area of experience in such a way that the area is not clearly defined.

**Vague Word** A word that lacks a clear and distinct meaning

Most words of general measurement—*short, tall, big, small, heavy, light*, and so on—are vague. The exact meanings of these words depend on the specific situation in which they are used and on the particular perspective of the person using them. For example, give specific definitions for the following words in italics by filling in the blanks. Then compare your responses with those of other members of the class. Can you account for the differences in meaning?

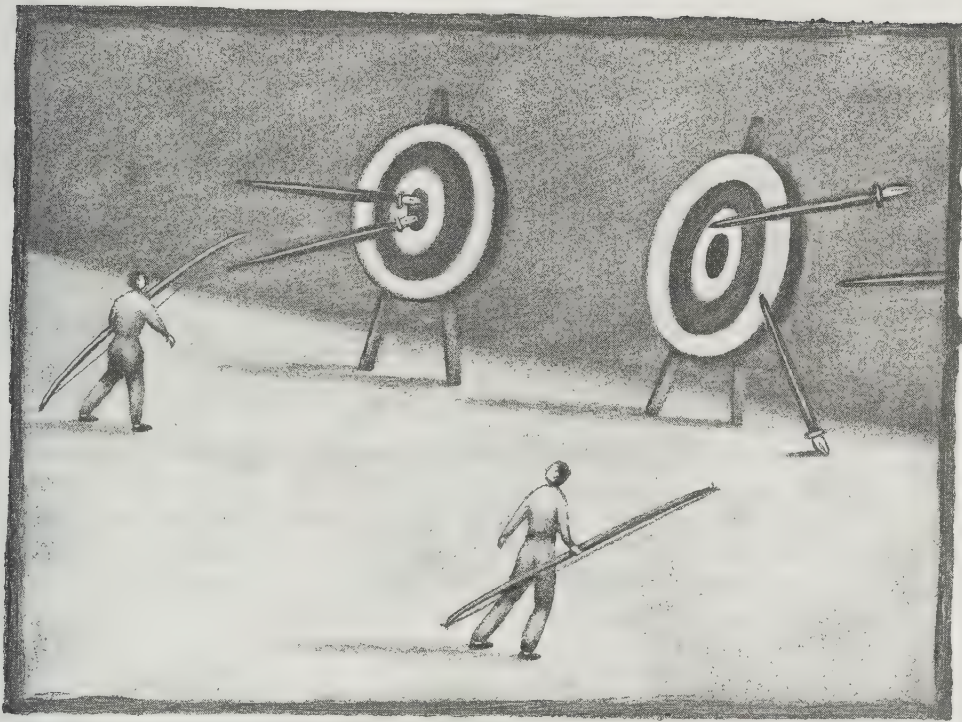
1. A *middle-aged* person is one who is \_\_\_\_\_ years old.
2. A *tall* person is one who is over \_\_\_\_\_ feet \_\_\_\_\_ inches tall.
3. It's *cold* outside when the temperature is \_\_\_\_\_ degrees.
4. A person is *wealthy* when he or she is worth \_\_\_\_\_ dollars.

Although the vagueness of general measurement terms can lead to confusion, other forms of vagueness are more widespread and often more problematic. Terms such as *nice* and *interesting*, for example, are imprecise and unclear. Vagueness of this sort permeates every level of human discourse, undermines clear thinking, and is extremely difficult to combat. To use language clearly and precisely, you must develop an understanding of the way language functions and commit yourself to breaking the entrenched habits of vague expression.

For example, read the following opinion of a movie and circle all the vague, general words that do not express a clear meaning.

*Pulp Fiction* is a really funny movie about some really unusual characters in California. The movie consists of several different stories that connect up at different points. Some of the stories are nerve-racking and others are hilarious, but all of them are very well done. The plots are very interesting, and the main characters are excellent. I liked this movie a lot.

Because of the vague language in this passage, it expresses only general approval—it does not explain in exact or precise terms what the experience was like. Thus the writer of the passage is not successful in communicating the experience.



*Strong writers have the ability to communicate effectively by using language clearly and precisely.*

Strong language users have the gift of symbolizing their experiences so clearly that you can actually relive those experiences with them. You can identify with them, sharing the same thoughts, feelings, and perceptions that they had when they underwent (or imagined) the experience. Consider how effectively the passage written by William Least Heat Moon on pages 268–269 communicates the thoughts, feelings, and experiences of the author.

One useful strategy for clarifying vague language often used by journalists is to ask and try to answer the following questions: *Who? What? Where? When? How? Why?* Let's see how this strategy applies to the movie vaguely described previously.

- *Who* were the people involved in the movie? (actors, director, producer, characters portrayed)

- *What* took place in the movie? (setting, events, plot development)
- *Where* does the movie take place? (physical location, cultural setting)
- *When* do the events in the movie take place? (historical situation)
- *How* does the film portray its events? (How do the actors create their characters? How does the director use film techniques to accomplish his or her goals?)
- *Why* do I have this opinion of the film? (What are the reasons for my forming that opinion?)

Even if we don't give an elaborate version of our thinking, we can still communicate effectively by using language clearly and precisely. For example, examine this review summary of *Pulp Fiction* by the professional film critic David Denby. Compare and contrast it with the earlier review.

An ecstatically entertaining piece of suave mockery by Quentin Tarantino that revels in every manner of pulp flagrancy—murder and betrayal, drugs, sex, and episodes of sardonically distanced sadomasochism—all told in three overlapping tales. It's a very funky, American sort of pop masterpiece: improbable, uproarious, with bright colors and danger and blood right on the surface.

## THINKING ACTIVITY 6.2 *REVIEWING A MOVIE*



Write a review of a movie that you saw recently, concentrating on expressing your ideas clearly and precisely. Use the following questions to guide your analysis.

1. *Who* were the people involved with the movie?
2. *What* took place in the movie?
3. *Where* does the movie take place?
4. *When* do the events in the movie take place?
5. *How* does the film portray its events?
6. *Why* did you form this particular opinion about the film? ◀

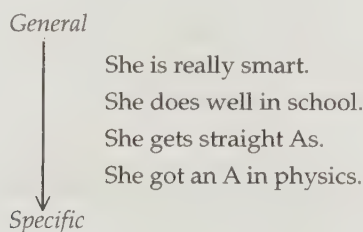
Virtually all of us use vague language extensively in our day-to-day conversations. In many cases, it is natural that your immediate reaction to an experience would be fairly general ("That's nice," "She's interesting," etc.).



If you are truly concerned with sharp thinking and meaningful communication, however, you should follow up these initial general reactions with a more precise clarification of what you really mean.

- I think that she is a nice person *because* . . .
- I think that he is a good teacher *because* . . .
- I think that this is an interesting class *because* . . .

Vagueness is always a matter of degree. In fact, you can think of your descriptive/informative use of language as falling somewhere on a scale between extreme generality and extreme specificity. For example, the following statements move from the general to the specific.



Although different situations require various degrees of specificity, you should work at becoming increasingly more precise in your use of language. For example, examine the following response to the assignment "Describe what you think about the school you are attending." Circle the vague words.

I really like it a lot. It's a very good school. The people are nice and the teachers are interesting. There are a lot of different things to do, and students have a good time doing them. Some of the courses are pretty hard, but if you study enough, you should do all right.

Notice how general the passage is. The writer says, for example, that "the people are nice," but gives no concrete and specific descriptions of why she thinks the people are nice. The writer would have been more specific if she had used statements such as the following:

- Everyone says hello.
- The students introduced themselves to me in class.
- I always feel welcome in the student lounge.
- The teachers take a special interest in each student.



Although these statements are more precise than saying, “The people are nice,” they can also be made more specific. To illustrate this, create more specific descriptions for each of these statements.

## *Ambiguous Language*

*Ambiguity* is another obstacle that can interfere with the clear expression of your thoughts and feelings. We have noted that words are used to represent various areas of experience. We sometimes make the mistake of thinking that each word stands for one distinct area of experience—an object, thought, or feeling. In fact, a word may represent various areas of experience and thus have a number of different meanings. When a word has more than one distinct meaning and we are not sure which meaning is being intended, then we say that the word is *ambiguous*. For example, the word *rich* can mean having lots of money (like a millionaire), or it can mean having lots of sugar and calories (like chocolate cream pie). Thus *rich* is a potentially ambiguous word.

<b>Ambiguous Word</b>	A word with more than one meaning that is open to different interpretations
-----------------------	---

How do you know to which of its multiple meanings an ambiguous word is referring? Usually you can tell by *how* the word is used—the situation, or context, in which it is employed. When someone asks you if you are “rich,” you can be pretty certain that that person is not asking if you are full of sugar and calories. As an example, give at least two meanings for the following potentially ambiguous words:

*exercise critical major bar cool*

Groups of words can also be ambiguous. If someone tells you, “I hope you get what you deserve!” you may not be sure if the speaker is wishing you well or ill unless the context of the remark makes clear his or her intention. Think of two meanings for each of the following sentences.

- He fed her dog biscuits.
- The duck is ready to eat.
- Flying planes can be dangerous.
- The shooting of the hunter disturbed him.

**THINKING PASSAGE** *AN ACCOUNT OF AVIANCA FLIGHT 52*

Using language imprecisely can lead to miscommunication, sometimes with disastrous results. For example, on January 29, 1990, an Avianca Airlines flight from Colombia, South America, to New York City crashed, killing seventy-three persons. After circling Kennedy Airport for 45 minutes, the plane ran out of fuel before it could land, apparently the result of imprecise communication between the plane's pilot and the air traffic controllers. Read the following excerpts from the *New York Times* account of the incident on January 30, 1990, and then answer the questions that follow.

**AN ACCOUNT OF AVIANCA FLIGHT 52**

The Federal Aviation Administration today defended the controllers who guided a Colombian jetliner toward Kennedy International Airport, releasing the first verbatim transcripts of communications in the hour before the jet crashed. The officials suggested that the plane's pilot should have used more precise language, such as the word "emergency," in telling controllers how seriously they were short of fuel. They made the statements a day after Federal investigators said that regional controllers never told local controllers the plane was short of fuel and had asked for priority clearance to land.

The transcripts show that the crew of Avianca Flight 52 told regional controllers about 45 minutes before the plane crashed that "we would run out of fuel" if the plane was redirected to Boston instead of being given priority to land at Kennedy. The crew said it would be willing to continue in its holding pattern 40 miles south of Kennedy for "about five minutes—that's all we can do" before the plane would have to move onward to Kennedy. But the regional controllers who gave that message to the local controllers who were to guide the plane on its final descent to Kennedy did not tell them that there was a problem with fuel supplies on the jet or that the plane had requested priority handling, the transcripts recorded by the FAA confirmed.

Taken by itself, the information that the plane could circle for just five more minutes would not make the immediate danger of the plane clear to the local controllers. Without being told that the plane did not have enough fuel to reach Boston or that its crew had asked for priority clearance, the local controllers might have assumed that it had reached a point where it could still land with adequate reserves of fuel still on board.

Despite the apparent lapse in communications among controllers, an FAA spokesman said they acted properly because the plane's crew had

not explicitly declared a fuel emergency. An emergency would require immediate clearance to land.

R. Steve Bell, president of the National Air Traffic Controllers Association, called the safety board's statements during its inquiry "highly misleading and premature." Mr. Bell, in a statement issued today, said the pilots of the plane should have made known to controllers the extent of their problem in order to obtain immediate clearance to land the plane. "The Avianca pilot never declared a 'fuel emergency' or 'minimum fuel,' both of which would have triggered an emergency response by controllers," he said. "Stating that you are low on fuel does not imply an immediate problem. In addition, this information would not necessarily be transmitted when one controller hands off to another." ■

### *Questions for Analysis*

1. If the pilot of the airplane was alive (all crew died in the crash), how do you think he would analyze the cause of the crash?
2. How do the air traffic controllers and the FAA analyze the cause of the crash?
3. How do you analyze the cause of the crash? What reasons led you to that conclusion?
4. Describe a situation that you were involved in, or that you heard about, in which a misunderstanding resulted from an ambiguous use of language. ◀

---

## USING LANGUAGE IN SOCIAL CONTEXTS

### *Language Styles*

Language is always used in a context. That is, you always speak or write with a person or group of people in mind. The group may include friends, co-workers, strangers, or only yourself! You also always use language in a particular situation. You may converse with your friends, meet with your boss, or carry out a business transaction at the bank or supermarket. In each of these cases, you use the *language style* that is appropriate to the social situation. For example, describe how you usually greet the following people when you see them:

*A good friend:*

*A teacher:*

*A parent:*

*An employer:*

*A waiter/waitress:*

When greeting a friend, you are likely to say something like, “Hey, Richard, how ya been!” or “Hi, Sue, good to see ya.” When greeting your employer, however, or even a coworker, something more like, “Good morning, Mrs. Jones” or “Hello, Dan, how are you this morning?” is in order. The reason for this variation is that the two social contexts, personal friendship and the workplace, are very different and call for different language responses. In a working environment, no matter how frequently you interact with coworkers or employers, your language style tends to be more formal and less abbreviated than it is in personal friendships. Conversely, the more familiar you are with someone, the better you know that person the more abbreviated your *style* of language will be in that context. The language you use with someone is more abbreviated when you share a variety of ideas, opinions, and experiences with that person. The language style identifies this shared thinking and consequently *restricts* the group of people who can communicate within this context.

We all belong to social groups in which we use styles that separate “insiders” from “outsiders.” When you use an abbreviated style of language with your friend, you are identifying that person as a friend and sending a social message that says, “I know you pretty well, and I can assume many common perspectives between us.” On the other hand, when you are speaking to someone at the office in a more elaborate language style, you are sending a different social message, namely, “I know you within a particular context [this workplace], and I can assume only certain common perspectives between us.”

In this way we use language to identify the social context and to define the relationship between the people communicating. Language styles vary from *informal*, in which we abbreviate not only sentence structure but also the sounds that form words—as in “ya” in the examples—to increasingly *formal*, in which we use more complex sentence structure as well as complete words in terms of sound patterns.

## *Slang*

Read the following dialogue and then rewrite it in your own style.

*Girl 1:* “Hey, did you see that new guy? He’s a dime. I mean, really diesel.”

*Girl 2:* “All the guys in my class are busted. They are tore up from the floor up. Punks, crack-heads, low-lifes. Let’s exit. There’s a jam tonight that is going

to be the bomb, really fierce. I've got to hit the books so that I'll still have time to chill."

How would you describe the style of the original dialogue? How would you describe the style of your version of the dialogue? The linguist Shoshana Hoose writes:

As any teen will tell you, keeping up with the latest slang takes a lot of work. New phrases sweep into town faster than greased lightning, and they are gone just as quickly. Last year's "hoser" is this year's "dweeb" (both meaning somewhat of a "nerd"). Some slang consists of everyday words that have taken on a new, hip meaning. "Mega," for instance, was used mainly by astronomers and mathematicians until teens adopted it as a way of describing anything great, cool, and unbelievable. Others are words such as *gag* that seem to have naturally evolved from one meaning (to throw up) to another (a person or thing that is gross to the point of making one want to throw up). And then there are words that come from movies, popular music, and the media. "Rambo," the macho movie character who singlehandedly defeats whole armies, has come to mean a muscular, tough, adventurous boy who wears combat boots and fatigues.

As linguists have long known, cultures create the most words for the things that preoccupy them the most. For example, Eskimos have more than seventy-six words for *ice* and *snow*, and Hawaiians can choose from scores of variations on the word *water*. Most teenage slang falls into one or two categories: words meaning "cool" and words meaning "out of it." A person who is really out of it could be described as a *nerd*, a *goober*, a *geek*, a *fade*, or a *pinhead*, to name just a few possibilities.

### THINKING ACTIVITY 6.3 *THINKING ABOUT SLANG*

Review the slang terms and definitions in the following glossary. How do your terms match up? For each term, list a word that you use or have heard of to mean the same thing.

*Word:*

*Your Word:*

*Meaning:*

*a dime, buff, diesel*

a good-looking guy

*phat, shorty, fly, all that*

a good-looking girl

*busted*

gross, disgusting



*crack-head, punk*

*hip, fierce*

*the bomb*

*trifling*

*played*

*exit, be out, step off*

someone who hangs out,

takes drugs

cool, awesome

really cool

showoff

stupid, out of date

leave

If your meanings did not match those in the glossary or if you did not recognize some of the words in the glossary, what do you think was the main reason for your lack of comprehension? ◀

Slang is a restrictive style of language that limits its speakers to a particular group. As Hoose points out, age is usually the determining factor in using slang. But there are special forms of slang that are not determined by age; rather, they are determined by profession or interest group. Let's look at this other type of language style.

## *Jargon*

Jargon is made up of words, expressions, and technical terms that are intelligible to professional circles or interest groups but not to the general public.

Consider the following interchanges:

1. A: Breaker 1-9. Com'on, Little Frog.  
 B: Roger and back to you, Charley.  
 A: You got to back down, you got a Smokey ahead.  
 B: I can't afford to feed the bears this week. Better stay at 5-5 now.  
 A: That's a big 10-4.  
 B: I'm gonna cut the coax now.
2. OK A1, number six takes two eggs, wreck 'em, with a whiskey down and an Adam and Eve on a raft. Don't forget the Jack Tommy, express to California.
3. Please take further notice, that pursuant to and in accordance with Article II, Paragraph Second and Fifteen of the aforesaid Proprietary Lease Agreement, you are obligated to reimburse Lessor for any expense Lessor incurs including legal fees in instituting any action or proceeding due to a default of your obligations as contained in the Proprietary Lease Agreement.

Word meaning in these interchanges is shared by (1) CB operators, (2) restaurant/diner cooks, and (3) attorneys. Most of the rest of you would be confused listening to these forms of English, or, in other words, to these types of *jargon*—even if you speak English fluently!

## *Dialects*

Within the boundaries of geographical regions and ethnic groups, the form of a language used may be so different from the usual (or standard) in terms of its sound patterns, vocabulary, and sentence structure that it either is noticeably different or cannot be understood by people outside the specific regional or ethnic group. In this case, we are no longer talking about variations in language *style*, we are talking instead about distinct *dialects*. Consider these sentences from three different dialects of English:

*Dialect A:* Dats allabunch of byoks at de license bureau. He fell out de rig and broke his leg boon.

*Dialect B:* My teacher she said I passed on the skin of my teeth. My sisters and them up there talkie' 'bout I should stayed back.

*Dialect C:* I went out to the garden to pick the last of them Kentucky Wonder pole beans of mine, and do you know, there on the grass was just a little mite of frost.

Probably you can recognize these sentences as English, but you may not recognize all of the words, sentence structures, and sound patterns that these speakers used.

Dialects differ from language styles in being generally restricted to geographical and/or ethnic groups. They also vary from the standard language to a greater degree than language styles do. Dialects vary not only in words but also in sound patterns and in syntax.

## *The Social Boundaries of Language*

As you have seen, a language is a system of communication, by sounds and markings, among given groups of people. Within each language community, members' thinking patterns are defined in many respects by the specific patterns of meaning that language imposes. Smaller groups within language communities display distinctive language patterns. When there are some differences

from the norm, mainly in vocabulary and length of sentences, we say the speakers are using a specific *language style*. When the form of the language spoken by these smaller groups shows many differences from the “usual” or “regular” form in words and sentence structure, we call this language form a *dialect*. Often language style is determined by the context, but sometimes speakers who differ from each other in terms of age, sex, or social class will also differ from each other in their speech—even in the same social context. This is called *social variation*.

We cannot, however, overlook the tie between language and thinking. That is, we cannot ignore the way in which our thoughts about a social situation determine the variety of language we use. The connection between language and thought turns language into a powerful social force that separates us as well as binds us together. The language that you use and the way you use it serve as important clues to your social identity. For example, dialect identifies your geographical area or group, slang marks your age group and subculture, jargon often identifies your occupation, and accent typically suggests the place you grew up and your socioeconomic class. Social dimensions of language are important influences in shaping your response to others. Sometimes they can trigger stereotypes you hold about someone’s interests, social class, intelligence, personal attributes, and so on. The ability to think critically gives you the insight and the intellectual ability to distinguish people’s language use from their individual qualities, to correct inaccurate beliefs about people, and to avoid stereotypical responses in the future.

### THINKING ACTIVITY 6.4 ANALYZING LANGUAGE USES



1. Describe examples, drawn from individuals in your personal experience, of each of the following: dialect, accent, jargon, slang.
2. Describe your immediate responses to the examples you just provided. For example, what is your immediate response to someone speaking in each of the dialects on page 284? To someone with a British accent? To someone speaking “computerese”? To someone speaking a slang that you don’t understand?
3. Analyze the responses you just described. How did they get formed? Do they represent an accurate understanding of the person or a stereotyped belief?
4. Identify strategies for using critical thinking abilities to overcome inaccurate and inappropriate responses to others based on their language usage. ◀



# Critical Thinking

## Language Styles

Give an example of each language style. Can there be more than one interpretation of each, depending on the cultural context?

Slang:

Jargon:

Dialect:





---

## USING LANGUAGE TO INFLUENCE

The intimate relationship between language and thinking makes it natural that people use language to influence the thinking of others. As you have seen, within the boundaries of social groups, people use a given language style or dialect to emphasize shared information and experience. Not only does this sharing socially identify the members of the group; it also provides a base for them to influence each other's thinking. The expression "Now you're speaking my language!" illustrates this point. Some people make a profession of using language to influence people's thinking. In other words, many individuals and groups are interested in influencing—and sometimes controlling—your thoughts, your feelings, and (as a result) your behavior. To avoid being unconsciously manipulated by these efforts, you must have an understanding and an awareness of how language functions. Such an understanding will help you distinguish actual arguments, information, and reasons from techniques of persuasion that others use to try to get you to accept their viewpoint without critical thought. Two types of language are often used to promote the uncritical acceptance of viewpoints:

- Euphemistic language
- Emotive language

By developing insight into these language strategies, you will strengthen your abilities to function as a critical thinker.

### Euphemistic Language

The term euphemism derives from a Greek word meaning "to speak with good words" and involves substituting a more pleasant, less objectionable way of saying something for a blunt or more direct way. For example, an entire collection of euphemisms exists to disguise the unpleasantness of death: "passed away," "went to her reward," "departed this life," and "blew out the candle."

Why do people use euphemisms? Probably to help smooth out the "rough edges" of life, to make the unbearable bearable and the offensive inoffensive. Sometimes people use them to make their occupations seem more important. For example, a garbage collector may be called a "sanitation engineer," a traveling salesman a "field representative," and a police officer a "law enforcement official."

Euphemisms can become dangerous when they are used to create misperceptions of important issues. For example, an alcoholic may describe himself or herself as a "social drinker," thus ignoring the problem and the help he or

she needs. Or a politician may indicate that one of her other statements was “somewhat at variance with the truth”—meaning that she lied. Even more serious examples would include describing rotting slums as “substandard housing,” making the deplorable conditions appear reasonable and the need for action less important. One of the most devastating examples of the destructive power of euphemisms was Nazi Germany’s characterization of the slaughter of over 12 million men, women, and children by such innocuous phrases as the “final solution” and the “purification of the race.”

George Orwell, the author of the futuristic novel *1984*, describes how governments often employ euphemisms to disguise and justify wrongful policies in the following passage taken from his classic essay “Politics and the English Language.”

In our time, political speech and writing are largely the defense of the indefensible. Things like the continuance of British rule in India, the Russian purges and deportations, [and] the dropping of the atom bombs on Japan can indeed be defended, but only by arguments which are too brutal for most people to face, and which do not square with the professed aims of political parties. Thus political language has to consist largely of euphemism, question-begging and sheer cloudy vagueness. Defenseless villages are bombarded from the air, the inhabitants driven out into the countryside, the cattle machine-gunned, the huts set on fire with incendiary bullets: this is called *pacification*. Millions of peasants are robbed of their farms and sent trudging along the roads with no more than they can carry: this is called *transfer of population* or *rectification of frontiers*. People are imprisoned for years without trial, or shot in the back of the neck or sent to die of scurvy in Arctic lumber camps: this is called *elimination of unreliable elements*. Such phraseology is needed if one wants to name things without calling up mental pictures of them.

### THINKING ACTIVITY 6.5 ANALYZING EUPHEMISMS



Read the following passage by *New York Times* columnist Bob Herbert dealing with the euphemisms that are being used for “getting fired.” Why do you think these bureaucratic euphemisms are so prevalent?

Select an important social problem, such as drug use, crime, poverty, juvenile delinquency, support for wars in other countries, racism, or unethical or illegal behavior in government. Identify several euphemisms used to describe the problem and explain how the euphemisms can lead to dangerous misperceptions and consequences.

### "SEPARATION ANXIETY"

by Bob Herbert

The euphemism of choice for the corporate chopping block is downsizing, but variations abound. John Thomas, a 59-year-old AT&T employee, was told on Tuesday that his job was "not going forward." One thinks of a car with transmission trouble, or the New York Jets offense, not the demise of a lengthy career.

Other workers are discontinued, involuntarily severed, surplussed. There are men and women at AT&T who actually talk about living in a "surplus universe."

There are special leaves, separations, rebalances, bumpings and, one of my favorites, cascade bumpings. A cascade bumping actually sounds like a joyful experience.

In the old days some snarling ogre would call you into the office and say, "Jack, you're fired." It would be better if they still did it that way because that might make the downsized, discontinued, surplussed or severed employee mad as hell. And if enough employees got mad they might get together and decide to do something about the ever-increasing waves of corporate greed and irresponsibility that have capsized their lives and will soon overwhelm many more.

Instead, with the niceties scrupulously observed, and with employment alternatives in extremely short supply, the fired workers remain fearful, frustrated, confused, intimidated and far too docile. . . . The staggering job losses, even at companies that are thriving, are rationalized as necessary sacrifices to the great gods of international competition. Little is said about the corrosive effect of rampant corporate greed, and even less about peculiar notions like corporate responsibility and accountability—not just to stockholders, but to employees and their families, to the local community, to the social and economic well-being of the country as a whole.

*New York Times*, January 19, 1996 ■

### *Emotive Language*

What is your *immediate* reaction to the following words?

sexy	peaceful	disgusting	God	filthy
mouthwatering	bloodthirsty	whore	Nazi	

Most of these words probably stimulate certain feelings in you. In fact, this ability to evoke feelings in people accounts for the extraordinary power of language.

Making sense of the way that language can influence your thinking and behavior means understanding the emotional dimension of language. Special words (like those just listed) are used to stand for the emotive areas of your experience. These emotive words symbolize the whole range of human feelings, from powerful emotions ("I adore you!") to the subtlest of feeling, as revealed in this passage spoken by Chief Seattle in 1855, responding to a U.S. government proposal to buy his tribe's land and place the tribe on a reservation:

Every part of this soil is sacred in the estimation of my people. Every hillside, every valley, every plain and grove, has been hallowed by some sad or happy event in days long vanished. . . . The very dust upon which you now stand responds more lovingly to their footsteps than to yours, because it is rich with the blood of our ancestors and our bare feet are conscious of the sympathetic touch. . . . And when the last red man shall have perished, and the memory of my tribe shall have become a myth among the white men, these shores will swarm with the invisible dead of my tribe. . . . At night when the streets of your cities and villages are silent and you think them deserted, they will throng with the returning hosts that once filled and still love this beautiful land. The white man will never be alone. Let him be just and deal kindly with my people, for the dead are not powerless. Dead, did I say? There is no death, only a change of worlds.

Emotive language often plays a double role—it not only symbolizes and expresses our feelings but also arouses or *evokes* feelings in others. When you say "I love you" to someone, you usually are not simply expressing your feelings toward the person—you also hope to inspire similar feelings in that person toward you. Even when you are communicating factual information, you make use of the emotive influence of language to interest other people in what you are saying. For example, compare the factually more objective account by the *New York Times* of Malcolm X's assassination with the more emotive/action account by *Life* magazine (page 164). Which account do you find more engaging? Why?

Although an emotive statement may be an *accurate* description of how you feel, it is *not* the same as a factual statement because it is true only for you—not for others. For instance, even though you may feel that a movie is tasteless and repulsive, someone else may find it exciting and hilarious. By describing your



feelings about the movie, you are giving your personal evaluation, which often differs from the personal evaluations of others (consider the case of conflicting reviews of the same movie). A factual statement, on the other hand, is a statement with which all “rational” people will agree, providing that suitable evidence for its truth is available (for example, the fact that mass transit uses less energy than automobiles).

In some ways, symbolizing your emotions is more difficult than representing factual information about the world. Expressing your feelings toward a person you know well often seems considerably more challenging than describing facts about the person.

When emotive words are used in larger groups (such as in sentences, paragraphs, compositions, poems, plays, novels, and so on), they become even more powerful. The pamphlets of Thomas Paine helped inspire American patriots during the Revolutionary War, and Abraham Lincoln’s Gettysburg Address has endured as an expression of our most cherished values. On the other hand, it was the impassioned oratory of Adolf Hitler that helped influence the German people before and during World War II.

One way to think about the meaning and power of emotive words is to see them on a scale or continuum from mild to strong. For example:

- *overweight/plump*
- *fat*
- *obese*

The thinker Bertrand Russell used this feature of emotive words to show how we perceive the same trait in various people:

- I am firm.
- You are stubborn.
- He/she is pigheaded.

We usually tend to perceive ourselves favorably (“I am firm”). I am speaking to you face to face, so I view you only somewhat less favorably (“You are stubborn”). But since a third person is not present, you can use stronger emotive language (“He/she is pigheaded”). Try this technique with two other emotive words:

1. I am . . . .    You are . . . .    He/she is . . . .
2. I am . . . .    You are . . . .    He/she is . . . .

Finally, emotive words can be used to confuse opinions with facts, a situation that commonly occurs when we combine emotive uses of language with

informative uses. Although people may appear to be giving *factual* information, they actually may be adding personal evaluations that are not factual. These opinions are often emotional, biased, unfounded, or inflammatory. Consider the following statement: “New York City is a filthy and dangerous pigpen—only idiots would want to live there.” Although the speaker is pretending to give factual information, he or she is really using emotive language to advance an opinion. But emotive uses of language are not always negative. The statement “She’s the most generous, wise, honest, and warm friend that a person could have” also illustrates the confusion of the emotive and the informative uses of language, except that in this case the feelings are positive.

The presence of emotive words is usually a sign that a personal opinion or evaluation rather than a fact is being stated. Speakers occasionally do identify their opinions as opinions with such phrases as “In my opinion . . .” or “I feel that . . .” Often, however, speakers do *not* identify their opinions as opinions because they *want* you to treat their judgments as *facts*. In these cases the combination of the informative use of language with the emotive use can be misleading and even dangerous.

### THINKING ACTIVITY 6.6 ANALYZING EMOTIVE LANGUAGE



Identify examples of emotive language in the following passages and explain how it is used by the writers to influence people’s thoughts and feelings.

I draw the line in the dust and toss the gauntlet before the heel of tyranny, and I say segregation now, segregation tomorrow, segregation forever.

—Governor George C. Wallace, 1963

We dare not forget today that we are heirs of that first revolution. Let the word go forth from this time and place, to friend and foe alike, that the torch has been passed to a new generation of Americans—born in this century, tempered by war, disciplined by a hard and bitter peace, proud of our ancient heritage—and unwilling to witness or permit the slow undoing of those human rights to which this nation has always been committed, and to which we are committed today at home and around the world.

—President John F. Kennedy, Inaugural Address, 1961

Every criminal, every gambler, every thug, every libertine, every girl ruiner, every home wrecker, every wife beater, every dope peddler, every moonshiner, every crooked politician, every pagan Papist priest, every shyster lawyer, every white slaver, every brothel madam, every Rome-controlled newspaper, every black spider—is fighting the Klan. Think it over. Which side are you on?

—From a Ku Klux Klan circular

We need another and a wiser and perhaps a more mystical concept of animals. Remote from universal nature, and living by complicated artifice, man in civilization surveys the creature through the glass of his knowledge and sees thereby a feather magnified and the whole image in distortion. We patronize them for their incompleteness, for their tragic fate of having taken form so far below ourselves. And therein we err, and greatly err. For the animal shall not be measured by man. In a world older and more complete than ours they move finished and complete, gifted with extensions of the senses you have lost or never attained, living by voices you shall never hear. They are not brethren, they are not underlings; they are other nations, caught with ourselves in the net of life and time, fellow prisoners of the splendour and travail of the earth.

—Henry Beston, *The Outermost House* ◀

## LOOKING CRITICALLY @ FREEDOM OF EXPRESSION ON THE INTERNET



Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof; or abridging the freedom of speech, or of the press; or the right of the people peaceably to assemble, and to petition the Government for redress of grievances.

—Article 1 of the Amendments to the Constitution of the United States

So here you are in the electronic age, happily sending emails to your friends and coworkers, posting messages on school or company network bulletin boards,

and chatting away in a computer service forum with buddies who share interests with you. It's fast, it's modern, it's easy, and it's the true manifestation of free speech, to communicate with anyone you want to, whenever you want to, by whatever means you want to use. Suddenly, you find a baby photo of yourself at age two, in the bathtub, posted on the Internet. *Or* a scribbled ranting about your work supervisor, sent via email to a coworker to vent your feelings after a bad day at the office, is forwarded by who-knows-who to your boss, with a copy to the Human Resources Department. *Or* your school email box is bombarded with junk mail, advertising everything from used computer parts to XXX-rated magazines. *Or* the reference materials you found on the Internet and cited in your recent term paper turn out to be inaccurate and misleading. *Or* the poem you struggled to finish and sent to a friend turns up published in an online magazine under someone else's byline. Who regulates these abuses? What has happened to your privacy? What does this freewheeling use of the information superhighway mean? Who "owns" cyberspace? Who protects the unwary from junk?

It's important to understand that all of these computer online tools—email, chat rooms, message boards—are relatively new and still being developed. The regulations that govern them are unclear and still emerging. While informal rules among computer users are fairly common, institutions such as schools, businesses, and the government are taking a firmer and more serious approach to regulation. While photocopying a chain letter and remailing it to a hundred people can be done, it also can be a costly and tedious process. Forwarding an email to that same hundred unsuspecting souls can be accomplished in a few seconds, with relatively no apparent cost. Thus that kind of behavior, known as "spamming," is considered taboo in cyberspace. Just as legislation has been passed in some regions to prevent advertisers from clogging customers' fax machines with unsolicited junk mail, regulators are also considering ways to prevent mass mailings from proliferating on the Internet. While some folks cry that this is a violation of their freedom of speech, the recipients of this deluge of electronic trash are yelling equally loudly for protection from the misuse of their phone lines, online accounts, and personal space.

Who actually owns the Web? No one. As the connections to more and more parties expand exponentially, control weakens. Before you post a message or picture on a community electronic bulletin board, think about who will see it, who can copy it, and where it might end up. Privacy is almost nonexistent in cyberspace. Do you really want your future employer to see that picture of you? Do you really want your tirade about a stressful day fighting crowds and dealing with interoffice politics or about a particularly tough professor to be seen by



everyone—five years from now? And the affection conveyed in the invitation to your boyfriend or girlfriend to spend the weekend at your family's house over the holidays—do you really want it sent to everyone in town?

Many companies and schools now have newcomers read and sign statements that spell out the institution's policy on use of their computers. They caution folks to remember that anything written via email belongs to the organization and not to the individual. Since the computers and their electronic services belong to the school or company, its representatives feel that whatever is written or said via their communications systems also belongs to them. Violation of acceptable behavior online or abuse of email for personal use can sometimes result in the expulsion or termination of the user privileges of the offender. Are you thinking of using the school's email service to send out 400 invitations to your high school reunion and asking for RSVPs to be sent to your student email box? Think again: the outgoing and incoming mail can slow down the school's service, and your email inbox may not be able to accommodate that amount of mail. Are you thinking of asking your parents if you can use their company service instead? Such an act could be considered theft of time and equipment. After all, it takes time for someone to create and send out the email as well as read through and print or copy and save the responses. The flux of incoming mail activity can also add wear and tear to the software and computer server, which might have limited space and processing capability.

Can your supervisor read your email and have you disciplined for being disgruntled when corresponding with a friend? Is this an invasion of privacy on the manager's part, or is it a misuse of company tools on yours? When you go into an online chat room, and the host warns you that your language is inappropriate for the group, can you angrily assert your right to free speech—or does the service have a right to restrict such behavior for the overall benefit of its customers? Do you have any recourse against the person who created a Web site that resembled a formal library and from which you quoted facts and figures, all of which turned out to be fake? Or is cyberspace an open canvas where anyone can write anything at anytime and where you must learn to check and double-check their accuracy before taking any words at face value?

**Computer viruses** are another disturbing example of how freedom of expression in the electronic age can threaten the well-being of innocent people. Much like a real viral infection, these programs spread quickly and without warning from computer to computer by the sharing of diskettes or by the copying or downloading of files onto individual computers as well as onto networks of computers. Some viruses are just annoying; others can destroy entire systems, programs, and mounds of information. They can wreak havoc on your operations and your life. These insidious and deadly infections can be invisible



to the unknowing, equipped with timers that delay their actual activation until you unwittingly do something or until a date occurs that triggers the virus program. These viruses are sneaky. For example, one type is the Trojan virus—named after the Greek myth in which soldiers hid inside a huge wooden horse given as a “gift” to the enemy. This is a file that looks like something good but in fact holds something extremely destructive: a program that will insinuate itself into your files and destroy them. A prevalent scam is for someone to send you an “official-looking” upgrade to a popular program with a fake “official” cover email letter. When you unsuspectingly download it onto your computer, this “gift” will eventually do something dreadful, like wiping out your hard drive and causing you grief and aggravation. That’s why you should NEVER download files from anyone you don’t know, and you should even avoid taking a file (games, chain letters) from a friend who might not realize the file contains a virus passed to her. Just like the bubonic plague, the virus may take a little while to erupt, but it packs a powerful wallop when it hits you.

One way to help “inoculate” yourself against these nasty viruses is to install antivirus programs on your computer. These will help protect your system and alert you when an apparently innocuous file poses a deadly threat. Maintaining a healthy computer is similar to maintaining sound physical health: an ounce of prevention is worth a pound of cure!

It’s important that you realize that the fast-paced electronic environment is not perfect and is ever-changing. You need to know the game plan, follow the rules, and be cautious when using any of its features—whether it be email sent and received, bulletin boards read and messages posted, or data found on home pages of so-called libraries and other institutions, as well as those that belong to individuals. And so, while the First Amendment will guarantee your right to say what you want, when you want, to whomever you want, by whatever means you want, your obligation is to speak freely with respect, common sense, and by thinking FIRST to protect your interests and the interests of those who may venture to see what you have to say. In other words, you have to *think critically* about the complex issues of freedom and privacy, rights and responsibility, as they relate to every area of your life, including the expanding universe of the Internet.

To explore some of these ideas, work with a classmate to create two scenarios that you believe illustrate misuses of the Internet. Explain the reasons why you believe these uses violate the privacy or rights of others. *Then* explain why someone else might *disagree* with your view and explain the reasons why that person might believe these uses should be protected as freedoms of expression. Finally, explain how these uses could be regulated in order to restrict or prevent their abuse.

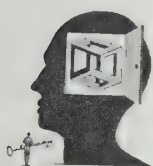
---

## SUMMARY

This chapter on language explores the essential role of language in developing sophisticated thinking abilities. The goal of clear, effective thinking and communication—avoiding ambiguity and vagueness—is accomplished through the joint efforts of thought and language. Learning to use the appropriate language style, depending on the social context in which you are operating, requires both critical judgment and flexible expertise with various language forms. Critically evaluating the pervasive attempts of advertisers and others to bypass your critical faculties and influence your thinking involves insight into the way language and thought create and express meaning.

Its link with thinking makes language so powerful a tool that we not only rely on it as a vehicle for expressing our thoughts and feelings and for influencing others, but we also use language to provide a structure for learning. Like a choreographer who creates a dance, language shapes and forms our thoughts. It organizes them. It relates one idea to another so that their combinations, many and varied, can be reported with strength and vitality, creating meaning that no one idea could convey alone. Used expertly, language *expresses* our thinking in a way that clearly evokes the images, feelings, and ideas that we as speakers and writers want to present. It also *communicates* our thinking in such a way that others can comprehend our meaning, in turn making appropriate inferences and judgments and thereby expanding their own thinking.

### THINKING PASSAGE    *SEX, LIES AND CONVERSATION*



Recently gender differences in language use have reached the forefront of social research, even though variations in language use between the sexes has been observed for centuries. Proverbs such as “A woman’s tongue wags like a lamb’s tail” historically attest to supposed differences—usually inferiorities—in women’s speech, and by implication, in their thinking when compared with men’s. Vocabulary, swearing and use of taboo language, pronunciation, and verbosity have all been said to illustrate gender differences in language. Only within the last two decades, however, have scholars of the social use of language paid serious attention to the variation between men’s and women’s language and the social factors that contribute to these differences. The following passage from the work of Deborah Tannen reflects the current interest in

sociolinguistic variations between the “languages” used by women and men. After reading the selection, answer the questions that follow.

SEX, LIES AND CONVERSATION:  
WHY IS IT SO HARD FOR MEN AND WOMEN TO  
TALK TO EACH OTHER?  
by Deborah Tannen

I was addressing a small gathering in a suburban Virginia living room—a women’s group that had invited men to join them. Throughout the evening, one man had been particularly talkative, frequently offering ideas and anecdotes, while his wife sat silently beside him on the couch. Toward the end of the evening, I commented that women frequently complain that their husbands don’t talk to them. This man quickly concurred. He gestured toward his wife and said, “She’s the talker in our family.” The room burst into laughter; the man looked puzzled and hurt. “It’s true,” he explained. “When I come home from work I have nothing to say. If she didn’t keep the conversation going, we’d spend the whole evening in silence.”

This episode crystallizes the irony that although American men tend to talk more than women in public situations, they often talk less at home. And this pattern is wreaking havoc with marriage.

The pattern was observed by political scientist Andrew Hacker in the late ’70s. Sociologist Catherine Kohler Riessman reports in her new book *Divorce Talk* that most of the women she interviewed—but only a few of the men—gave lack of communication as the reason for their divorces. Given the current divorce rate of nearly 50 percent, that amounts to millions of cases in the United States every year—a virtual epidemic of failed conversation.

In my own research, complaints from women about their husbands most often focused not on tangible inequities such as having given up the chance for a career to accompany a husband to his, or doing far more than their share of daily life-support work like cleaning, cooking, social arrangements and errands. Instead, they focused on communication: “He doesn’t listen to me,” “He doesn’t talk to me.” I found, as Hacker observed years before, that most wives want their husbands to be, first and foremost, conversational partners, but few husbands share this expectation of their wives.

In short, the image that best represents the current crisis is the stereotypical cartoon scene of a man sitting at the breakfast table with a newspaper held up in front of his face, while a woman glares at the back of it, wanting to talk.

### Linguistic Battle of Sexes

How can women and men have such different impressions of communication in marriage? Why the widespread imbalance in their interests and expectations?

In the April issue of *American Psychologist*, Stanford University's Eleanor Maccoby reports the results of her own and others' research showing that children's development is most influenced by the social structure of peer interactions. Boys and girls tend to play with children of their own gender, and their sex-separate groups have different organizational structures and interactive norms.

I believe these systematic differences in childhood socialization make talk between women and men like cross-cultural communication, heir to all the attraction and pitfalls of that enticing but difficult enterprise. My research on men's and women's conversations uncovered patterns similar to those described for children's groups.

For women, as for girls, intimacy is the fabric of relationships, and talk is the thread from which it is woven. Little girls create and maintain friendships by exchanging secrets; similarly, women regard conversation as the cornerstone of friendship. So a woman expects her husband to be a new and improved version of a best friend. What is important is not the individual subjects that are discussed but the sense of closeness, a life shared, that emerges when people tell their thoughts, feelings, and impressions.

Bonds between boys can be as intense as girls', but they are based less on talking, more on doing things together. Since they don't assume talk is the cement that binds a relationship, men don't know what kind of talk women want, and they don't miss it when it isn't there.

Boys' groups are larger, more inclusive, and more hierarchical, so boys must struggle to avoid the subordinate position in the group. This may play a role in women's complaints that men don't listen to them. Some men really don't like to listen, because being the listener makes them feel one-down, like a child listening to adults or an employee to a boss.

But often when women tell men, "You aren't listening," and the men protest, "I am," the men are right. The impression of not listening results from misalignments in the mechanics of conversation. The misalignment begins as soon as a man and a woman take physical positions. This became clear when I studied videotapes made by psychologist Bruce Dorval of children and adults talking to their same-sex best friends. I found that at every age, the girls and women faced each other directly, their eyes anchored on each other's faces. At every age, the boys and men sat at angles to each other and looked elsewhere in the room, periodically



glancing at each other. They were obviously attuned to each other, often mirroring each other's movements. But the tendency of men to face away can give women the impression they aren't listening even when they are. A young woman in college was frustrated: Whenever she told her boyfriend she wanted to talk to him, he would lie down on the floor, close his eyes, and put his arm over his face. This signaled to her, "He's taking a nap." But he insisted he was listening extra hard. Normally, he looks around the room, so he is easily distracted. Lying down and covering his eyes helped him concentrate on what she was saying.

Analogous to the physical alignment that women and men take in conversation is their topical alignment. The girls in my study tended to talk at length about one topic, but the boys tended to jump from topic to topic. Girls exchanged stories about people they knew. The second-grade boys teased, told jokes, noticed things in the room and talked about finding games to play. The sixth-grade girls talked about problems with a mutual friend. The sixth-grade boys talked about 55 different topics, none of which extended over more than a few turns.

### **Listening to Body Language**

Switching topics is another habit that gives women the impression men aren't listening, especially if they switch to a topic about themselves. But the evidence of the 10th-grade boys in my study indicates otherwise. The 10th-grade boys sprawled across their chairs with bodies parallel and eyes straight ahead, rarely looking at each other. They looked as if they were riding in a car, staring out the windshield. But they were talking about their feelings. One boy was upset because a girl had told him he had a drinking problem, and the other was feeling alienated from all his friends.

Now, when a girl told a friend about a problem, the friend responded by asking probing questions and expressing agreement and understanding. But the boys dismissed each other's problems. Todd assured Richard that his drinking was "no big problem" because "sometimes you're funny when you're off your butt." And when Todd said he felt left out, Richard responded, "Why should you? You know more people than me."

Women perceive such responses as belittling and unsupportive. But the boys seemed satisfied with them. Whereas women reassure each other by implying, "You shouldn't feel bad because I've had similar experiences," men do so by implying, "You shouldn't feel bad because your problems aren't so bad."

There are even simpler reasons for women's impression that men don't listen. Linguist Lynette Hirschman found that women make more



listener-noise, such as “mhm,” “uhuh,” and “yeah,” to show “I’m with you.” Men, she found, more often give silent attention. Women who expect a stream of listener-noise interpret silent attention as no attention at all.

Women’s conversational habits are as frustrating to men as men’s are to women. Men who expect silent attention interpret a stream of listener-noise as overreaction or impatience. Also, when women talk to each other in a close, comfortable setting, they often overlap, finish each other’s sentences and anticipate what the other is about to say. This practice, which I call “participatory listenership,” is often perceived by men as interruption, intrusion and lack of attention.

A parallel difference caused a man to complain about his wife, “She just wants to talk about her own point of view. If I show her another view, she gets mad at me.” When most women talk to each other, they assume a conversationalist’s job is to express agreement and support. But many men see their conversational duty as pointing out the other side of an argument. This is heard as disloyalty by women, and refusal to offer the requisite support. It is not that women don’t want to see other points of view, but that they prefer them phrased as suggestions and inquiries rather than as direct challenges.

In his book *Fighting for Life*, Walter Ong points out that men use “agonistic” or warlike, oppositional formats to do almost anything; thus discussion becomes debate, and conversation a competitive sport. In contrast, women see conversation as a ritual means of establishing rapport. If Jane tells a problem and June says she has a similar one, they walk away feeling closer to each other. But this attempt at establishing rapport can backfire when used with men. Men take too literally women’s ritual “troubles talk,” just as women mistake men’s ritual challenges for real attack.

### **The Sounds of Silence**

These differences begin to clarify why women and men have such different expectations about communication in marriage. For women, talk creates intimacy. Marriage is an orgy of closeness: you can tell your feelings and thoughts, and still be loved. Their greatest fear is being pushed away. But men live in a hierarchical world, where talk maintains independence and status. They are on guard to protect themselves from being put down and pushed around.

This explains the paradox of the talkative man who said of his silent wife, “She’s the talker.” In the public setting of a guest lecture, he felt challenged to show his intelligence and display his understanding of the

lecture. But at home, where he has nothing to prove and no one to defend against, he is free to remain silent. For his wife, being home means she is free from the worry that something she says might offend someone, or spark disagreement, or appear to be showing off; at home she is free to talk.

The communication problems that endanger marriage can't be fixed by mechanical engineering. They require a new conceptual framework about the role of talk in human relationships. Many of the psychological explanations that have become second nature may not be helpful, because they tend to blame either women (for not being assertive enough) or men (for not being in touch with their feelings). A sociolinguistic approach by which male-female conversation is seen as cross-cultural communication allows us to understand the problem and forge solutions without blaming either party.

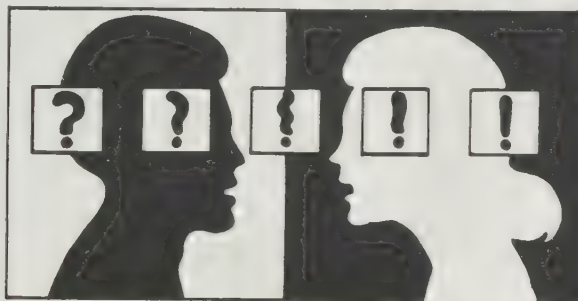
Once the problem is understood, improvement comes naturally, as it did to the young woman and her boyfriend who seemed to go to sleep when she wanted to talk. Previously, she had accused him of not listening, and he had refused to change his behavior, since that would be admitting fault. But then she learned about and explained to him the differences in women's and men's habitual ways of aligning themselves in conversation. The next time she told him she wanted to talk, he began, as usual, by lying down and covering his eyes. When the familiar negative reaction bubbled up, she reassured herself that he really was listening. But then he sat up and looked at her. Thrilled, she asked why. He said, "You like me to look at you when you talk, so I'll try to do it." Once he saw their differences as cross-cultural rather than right and wrong, he independently altered his behavior.

Women who feel abandoned and deprived when their husbands won't listen to or report daily news may be happy to discover their husbands trying to adapt once they understand the place of small talk in women's relationships. But if their husbands don't adapt, the women may still be comforted that for men, this is not a failure of intimacy. Accepting the difference, the wives may look to their friends or family for that kind of talk. And husbands who can't provide it shouldn't feel their wives have made unreasonable demands. Some couples will still decide to divorce, but at least their decisions will be based on realistic expectations.

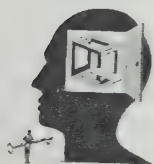
In these times of resurgent ethnic conflicts, the world desperately needs cross-cultural understanding. Like charity, successful cross-cultural communication should begin at home. ■

### Questions for Analysis

1. Identify the distinctive differences between the communication styles of men and women, according to Deborah Tannen, and explain how these differences can lead to miscommunication and misunderstanding.
2. Based on your experience, explain whether you believe Dr. Tannen's analysis of these different communication styles is accurate. Provide specific examples to support your viewpoint.
3. Describe a situation in which you had a miscommunication with a person of the opposite sex. Analyze this situation based on what you read in the Tannen article.
4. Identify strategies that both men and women can use to help avoid the miscommunication that can result from these contrasting styles. ◀



### THINKING PASSAGE *FEMININITY AND MASCULINITY*



The following passages by Susan Brownmiller and Patricia Leigh Brown deal with the concepts of masculinity and femininity. After reading the passages, analyze the authors' concepts of masculinity and femininity by answering the questions that follow. How do their perspectives on these concepts compare and contrast with your concepts and those of the other members of the class?

#### FEMININITY

By Susan Brownmiller

It is fashionable in some quarters to describe the feminine and masculine principles as polar ends of the human continuum, and to sagely profess that



*What's your reaction to the women in this photograph? Do you think that the concepts of masculinity and femininity are outdated relics of earlier cultures? Or do you believe that these concepts reflect basic qualities of the human species that are still relevant today?*

both polarities exist in all people. Sun and moon, yin and yang, soft and hard, active and passive, etcetera, may indeed be opposites, but a linear continuum does not illuminate the problem. What, then, is the basic distinction? The masculine principle is better understood as a driving ethos of superiority designed to inspire straightforward, confident success, while the feminine principle is composed of vulnerability, the need for protection, the formalities of compliance and the avoidance of conflict—in short, an appeal of dependence and good will that gives the masculine principle its romantic validity and admiring applause. Femininity pleases men because it makes them appear more masculine by contrast; and, in truth, conferring an extra portion of unearned gender distinction on men, and unchallenged space in which to breathe freely and feel stronger, wiser, more competent, is femininity's special gift. One could say that masculinity is often an effort to please women, but masculinity is known to please by displays of mastery and competence while femininity pleases by suggesting that these concerns, except in small matters, are beyond its intent. Whimsy, unpredictability and patterns of thinking and behavior that are dominated by emotion, such as tearful



expressions of sentiment and fear, are thought to be feminine precisely because they lie outside the established route to success.

### THE RETURN OF MANLY MEN\*

By Patricia Leigh Brown

They are the knights in shining fire helmets. They are the welders, policemen and businessmen with can-do attitudes who are unafraid to tackle armed hijackers—even if it means bringing down an airplane.

The operative word is men. Brawny, heroic, manly men.

After a few iffy decades in which manliness was not the most highly prized cultural attribute, men—stoic, muscle-bound and exuding competence from every pore—are back. Since Sept. 11, the male hero has been a predominant cultural image, presenting a beefy front of strength to a nation seeking steadiness and emotional grounding. They are the new John Waynes. They are, as the former Reagan speechwriter Peggy Noonan wrote in the *Wall Street Journal* recently, “men who charge up the stairs in a hundred pounds of gear and tell everyone else where to go to be safe.”

Of course, war has traditionally brought out America’s inner Schwarzenegger. But since the September attacks, the firefighter coated with ash and soot has provided a striking contrast to the now prehistoric-seeming male archetype of such a short time ago: the casually dressed dot-commer in khakis and a BMW.

“Before Sept. 11, ruggedness was an affectation you put on like an outfit,” said David Granger, the editor in chief of *Esquire* magazine. “Now there’s a selflessness being attributed to rugged men. After a decade of prosperity that made us soft, metaphorically and physically, there’s a longing for manliness. People want to regain what we had in World War II. They want to believe in big, strapping American boys.”

To be sure, there is a small measure of preening in the resurrected male hero. Men who have donned the same uniform every day with little fanfare—from local politicians in Brooks Brothers suits to cops in catalog-issue blues—are aware enough of the camera and their own testosterone to fervently seize masculinity’s newfound moment. From the Gang of Five (Bush, Gephardt, Daschle, Lott and Hastert) making decisions over breakfast on Capitol Hill, to the Special Ops forces blazing forth in Afghanistan, images of masculinity in full flex have played to maximum effect on television screens for weeks. So much so that, in the manner of football trading cards,

\*Patricia Leigh Brown, “The Return of Manly Men,” *The New York Times*, October 28, 2001 by The New York Times Co. Reprinted by permission.



the physical characteristics of the heroes aboard United Flight 93 (Todd Beamer, 6 feet, 200 pounds) have become an intrinsic part of the media retelling of that awful ordeal.

And of course, some observers like Carol Gilligan, the Graham professor of gender studies at Harvard and a visiting professor at the New York University School of Law, have noted that men's rising star has all but eclipsed that of the many heroic women who have risen to the occasion, be they firefighters or police officers.

Still, to cultural defenders of manliness who have deplored the last decade's gender-neutral sex roles, nirvana has arrived. "I can't help noticing how robustly, dreamily masculine the faces of the firefighters are," said Camille Paglia, the conservative social critic. "These are working-class men, stoical, patriotic. They're not on Prozac or questioning their gender."

In contrast to past eras of touchy-feeliness (Alan Alda) and the vaguely feminized, rakish man-child of the 1990's (Leonardo DiCaprio), the notion of physical prowess in the service of patriotic duty is firmly back on the pedestal.

"A few years ago, a lot of fashionable academics wrote about 'the end of the male project,' the idea that, due to technological advances, men no longer needed physical strength," said David Blankenhorn, president of the Institute for American Values, a New York organization that researches family issues. "Doesn't that look different now," he asked, "when 'the project' at hand is wrestling hijackers, pulling people out of buildings and hunting down terrorists in Afghanistan caves?"

As the country comes to grips with the possibility of deadly spores lurking in the mailbox and other fears, it may be that traditional images of manliness serve as emotional anchors. "We're all very afraid," said the writer Susan Faludi, whose most recent book, *Stiffed: The Betrayal of the American Man*, was an examination of the country's masculinity crisis. "There's a great desire to feel protected, to feel Daddy is going to take care of us. The image of firefighters and rescuers is a healing and satisfying vision of masculinity."

Cultural notions of manliness have, of course, worn very different faces over the last several weeks. The dark side has been on abundant display as information about the lives of the hijackers, as well as Osama bin Laden himself, come to light, revealing a society in which manhood is equated with violent conquest and women have been ruthlessly prevented from participating in almost every aspect of life. "The common thread in violent societies is the polarization of sex roles," said the feminist pioneer Gloria Steinem.

Part of understanding terrorism, in fact, often involves getting to the root of what is masculine. In her 1990 book, *"The Demon Lover: The Roots of Terrorism,"* which is being rushed back into print, the feminist author Robin Morgan examines the cyclical breeding of masculine aggression in some cultures. "The intersection of glamorized, eroticized violence with what is considered manhood forms the central knot of terrorism," she said.

But in this country, the most profound and hopeful changes to have emerged since Sept. 11 may include a new definition of manliness forged from the depths of sorrow and loss. "The good news," Ms. Morgan said, "is that the perception of the quote-unquote hero has moved from athletes and movie stars to people, largely men, who have an element of tenderness and self-sacrifice in them."

Or as the veteran television producer Norman Lear noted, the tougher hero that normally occupies the fictional world of television drama has been, quite suddenly, made real. "Now we're looking at real people, real heroes," he said. "That's an astonishingly good thing." ■

### Questions for Analysis

1. According to Susan Brownmiller, what are the properties of the concept *femininity*? What are some examples of this concept?
2. Explain whether you agree with the conceptual properties Brownmiller has identified. What properties of the concept of *femininity* do you think should be included that she has not addressed? Give at least one example of each property you identify.
3. According to Patricia Leigh Brown, what are the properties of the concept *masculinity*? What are some examples of this concept?
4. Explain whether you agree with the conceptual properties she has identified. What properties of the concept *masculinity* do you think should be included that Brown has not addressed? For each property you identify, give at least one example.
5. Some people feel that the concepts *masculinity* and *femininity* were formed by earlier cultures, are outdated in our current culture, and should be revised. Other people believe that these concepts reflect basic qualities of the human species, just like the sexual differences in other species, and should not be excessively tampered with. Explain where you stand on this issue, and describe the reasons that support your position. ◀

## THINKING PASSAGE *MATE SELECTION AND MARRIAGE*



The following readings explore the process relationships that characterize our romantic connections to other people. The first (Wright) is written from the point of view of evolutionary psychology and takes a fresh unsentimental perspective on why monogamy is the defining form for romantic and marital relationships in most cultures. In the second selection, the authors explore some of the crucial ingredients needed for developing healthy marital relationships. Working from a study of fifty successful marriages, the authors present their information first as a classification system, then as a process.

### THE MARRIAGE MARKET: WINNERS AND LOSERS

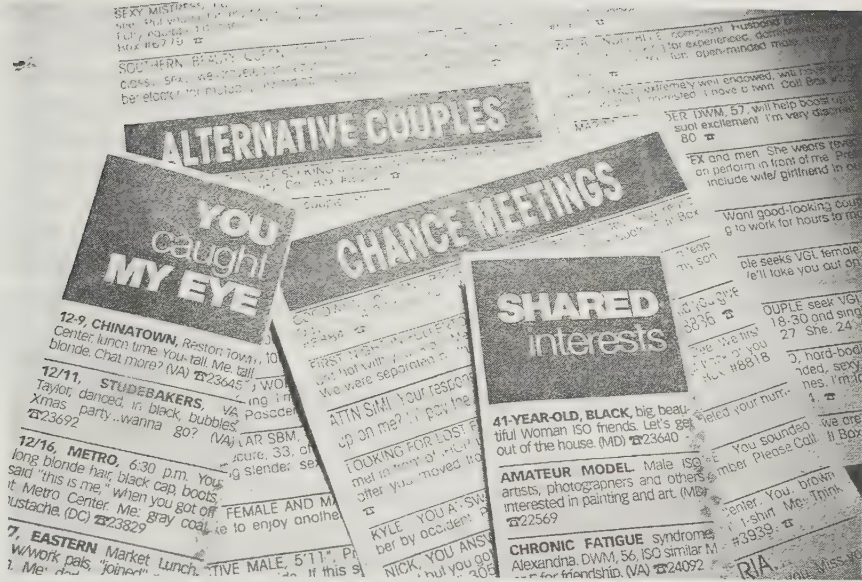
by Robert Wright

... Consider a crude and offensive but analytically useful model of the marital marketplace. One thousand men and one thousand women are ranked in terms of their desirability as mates. Okay, okay: there isn't, in real life, full agreement on such things. But there are clear patterns. Few women would prefer an unemployed and rudderless man to an ambitious and successful one, all other things being even roughly equal; and few men would choose an obese, unattractive, and dull woman over a shapely, beautiful, sharp one. For the sake of intellectual progress, let's simply and directly collapse these and other aspects of attraction into a single dimension.

Suppose these 2,000 people live in a monogamous society and each woman is engaged to marry the man who shares her ranking. She'd like to marry a higher-ranking man, but they're all taken by competitors who outrank her. The men too would like to marry up, but for the same reason can't. Now, before any of these engaged couples gets married, let's legalize polygyny and magically banish its stigma. And let's suppose that at least one woman who is mildly more desirable than average—a quite attractive but not overly bright woman with a ranking of, say, 400—dumps her fiancé (male #400, a shoe salesman) and agrees to become the second wife of a successful lawyer (male #40). This isn't wildly implausible—forsaking a family income of around \$40,000 a year, some of which she would have to earn herself by working part-time at a Pizza Hut, for maybe \$100,000 a year and no job requirement (not to mention the fact that male #40 is a better dancer than male #400).

Even this first trickle of polygynous upward mobility makes most women better off and most men worse off. All 600 women who ranked below the deserter move up one notch to fill the vacuum; they still get a husband all to themselves, and a better husband at that. Meanwhile 599 men wind up with





If you were looking for a mate in the personals, what sort of ad would appeal to you? If you were writing your own ad, what would it say? What are some of the qualities that most people find desirable in a potential mate?

a wife slightly inferior to their former fiancées—and one man now gets no wife at all. Granted: in real life, the women wouldn't move up in lockstep. Very early in the process, you'd find a woman who, pondering the various intangibles of attraction, would stand by her man. But in real life, you'd probably have more than a trickle of upward mobility in the first place. The basic point stands: many, many women, even many women *who will choose not to share a husband*, have their options expanded when all women are free to share a husband. By the same token, many, many men can suffer at the hands of polygyny.

All told, then, institutionalized monogamy, though often viewed as a big victory for egalitarianism and for women, is emphatically not egalitarian in its effects on women. Polygyny would much more evenly distribute the assets of males among them. It is easy—and wise—for beautiful, vivacious wives of charming, athletic corporate titans to dismiss polygyny as a violation of the basic rights of women. But married women living in poverty—or women without a husband or child, and desirous of both—could be excused for wondering just which women's rights are protected by monogamy. The

only underprivileged citizens who should favor monogamy are men. It is what gives them access to a supply of women that would otherwise drift up the social scale.

So neither gender, as a whole, belongs on either side of the imaginary bargaining table that yielded the tradition of monogamy. Monogamy is neither a minus for men collectively nor a plus for women collectively; within both sexes, interests naturally collide. More plausibly, the grand, historic compromise was cut between more fortunate and less fortunate men. For them, the institution of monogamy does represent a genuine compromise: the most fortunate men still get the most desirable women, but they have to limit themselves to one apiece. This explanation of monogamy—as a divvying up of sexual property among men—has the virtue of consistency with the fact that opened this chapter: namely, that it is men who usually control sheerly political power, and men who, historically, have cut most of the big political deals.

This is not to say, of course, that men ever sat down and hammered out the one-woman-per-man compromise. The idea, rather, is that polygyny has tended to disappear in response to egalitarian values—not values of equality between the sexes, but of equality among men. And maybe “egalitarian values” is too polite a way of putting it. As political power became distributed more evenly, the hoarding of women by upper-class men simply became untenable. Few things are more anxiety-producing for an elite governing class than gobs of sex-starved and childless men with at least a modicum of political power.

This thesis remains only a thesis. But reality at least loosely fits it. Laura Betzig has shown that in preindustrial societies, extreme polygyny often goes hand in hand with extreme political hierarchy, and reaches its zenith under the most despotic regimes. . . . And the allocation of sexual resources by political status has often been fine-grained and explicit. In Inca society, the four political offices from petty chief to chief were allotted ceilings of seven, eight, fifteen, and thirty women, respectively. It stands to reason that as political power became more widely disbursed, so did wives. And the ultimate widths are one-man-one-vote and one-man-one-wife. Both characterize most of today’s industrialized nations. . . .

#### FROM PATTERNS IN MARRIAGE

by Judith Wallerstein with Sandra Blakeslee

. . . I realized . . . that each of [the] marriages [I was studying] was a different world, a sovereign country unto itself. Rather than a single archetype of



happy marriage, I found many different kinds. Like a richly detailed tapestry, each relationship was woven from the strands of love, friendship, sexual fulfillment, nurture, protection, emotional security, economic responsibility, and coparenting. But the patterns in the marital weave varied, and gradually I began to see several distinct types.

I learned that at the heart of any good marriage is a core relationship created out of the conscious and unconscious fit of the partner's needs and wishes. This core reflects what each partner wants and expects from the other—expectations influenced by relationships that begin in infancy, childhood, and adolescence but that are ultimately shaped within the marriage. It also reflects what each person considers undesirable or unacceptable. The core relationship includes each person's perceptions of the other: "She is so gentle," "He is so exciting"; and what each values in the other: "She is entirely honest," "He will be a wonderful father." The marital core represents a shared vision of what brought these two people together and what they see for their future as a couple and as a family—Me and You and Us through time.

As my study proceeded, I began to see that these good marriages naturally sorted themselves into distinguishable types. Once the study was completed, I decided to propose a typology that consists of four marriage forms, which I have labeled romantic, rescue, companionate, and traditional. Although a relationship rarely falls neatly into a single category, the couples in this study were largely captured by this typology. Some of the marriages clearly belonged to one type or another, while others were hybrids. Undoubtedly other types of marriage exist. In many cultures throughout the world, marriages are more embedded in the extended family than they are in America. Some long-lasting homosexual relationships would fall into these categories, while others would require an extension of my typology.

Although the types overlap, they are unquestionably distinct forms. Each gives priority to some needs and relegates others to second place. It is inevitable that in weaving one pattern, we exclude others. Every marriage has roads not taken. Each offers a different menu of possibilities and limitations.

Thus each type of marriage provides a different degree and kind of closeness between husband and wife. The views of the roles of the man and the woman vary among the different types; so do the views of the appropriate division of labor and responsibility for child care. For some couples a single pattern of connectedness remains constant throughout the marriage. In others the core relationship may shift gradually or change radically at a critical developmental transition, such as the birth of the first child, the time when the children leave home, the arrival of midlife, or retirement.

Sometimes the man and woman are in accord from courtship on. More often they come to agree about fundamental issues during the early years of marriage. The core relationship emerges gradually as the partners weave the tapestry of their relationship. If the fit is right, the marriage itself helps shape the closeness in values and shared expectations. A marriage in which two people have incompatible expectations or unmodifiable demands is likely to fail.

The first of my proposed types is the romantic marriage, which has at its core a lasting, passionately sexual relationship. A couple in a romantic marriage often shares the sense that they were destined to be together. Exciting, sensual memories of their first meeting and courtship retain a glow over the years and are a continuing part of the bond between them.

The second type I identified is the rescue marriage. Although every good marriage provides comfort and healing for past unhappiness, in a successful rescue marriage the partners' early experiences have been traumatic. They are "walking wounded" as they begin their lives together. The healing that takes place during the course of the marriage is the central theme.

I call the third type companionate, and this may be the most common form of marriage among younger couples, as it reflects the social changes of the last two decades. At its core is friendship, equality, and the value system of the women's movement, with its corollary that the male role, too, needs to change. A major factor in the companionate marriage is the attempt to balance the partners' serious emotional investment in the workplace with their emotional investment in the relationship and the children.

The fourth type is the traditional marriage, which has at its core a clear division of roles and responsibilities. The woman takes charge of home and family while the man is the primary wage earner. Today women in this form of marriage define their lives in terms of chapters: the time before marriage and children, the chapter when children are young, and a later chapter that may include a return to work or a new undertaking.

All marriages need to be renegotiated as they mature, but renegotiation is especially important in second marriages. Although they come in every form—they can be romantic, traditional, companionate, or rescue—second marriages carry a particular set of challenges. They are accompanied by a host of characters from the past: the ex-wife, the ex-husband, children from the first marriage. As I learned from my study, people who enter a second marriage have a specific agenda: to undo the trauma they experienced and prevent its recurrence.

Also worthy of special mention is the retirement marriage. While there were only a few retired couples in this study, they shared many characteristics,

providing insight on happy marriage in older age. The most notable feature is that the couple spends more time together than they have at any earlier time. This togetherness enriches, challenges, and surely changes their relationship.

Each of the four marriage types has a dangerous hidden potential within its design that I call the "antimarrriage." The antimarrriage emerges when the negative aspects that exist in every marriage begin to dominate. At that point the relationship can become a lifeless shell or a collusive arrangement in which the neurotic symptoms of the partners mesh so well that the marriage endures indefinitely. Thus the romantic marriage has the tragic potential for freezing husband and wife into a self-absorbed, childlike preoccupation with each other, turning its back on the rest of the world, including the children. The rescue marriage can provide, instead of healing, a new forum for replacing earlier traumas. Spouses have the capacity to wound and abuse each other, and one may suffer the abuse without leaving or protesting—mistakenly concluding that this is what life is about. The hopes for rescue and comfort that led to the marriage are buried and forgotten.

The danger in a companionate marriage is that it may degenerate into a brother-and-sister relationship. Invested primarily in their respective careers, husband and wife see each other only fleetingly, sharing a bed with little or no sex or emotional intimacy. And a traditional marriage may focus so narrowly on bringing up the children that the partners view each other only as parents; they dread the time when the children will leave home, knowing they will be left with little in common.

A second marriage also contains the potential for antimarrriage. The marriage may be so preoccupied with the earlier failures that it is unable to take off on its own. Sometimes, in their zeal to avoid repeating the earlier suffering, the man and the woman unite as allies in battle, projecting all their current difficulties onto the prior partners. The fighting fueled by shared hostility can absorb energy and large sums of money when it involves children. This form of antimarrriage cements the relationship but falls far short of a good marriage.

Marriage today provides a wider range of choices than ever before. Each kind of marriage has its strengths, its limitations, and its hazards. Understanding what each choice entails would enable a couple in the early years of marriage to get their bearings quickly and plan ahead. For example, a companionate marriage requires the couple to make careful decisions about when to have children and how they will be cared for. It also requires them to take special precautions against becoming too separate. Similarly, a traditional marriage depends on having a single sufficient income so that one parent can



stay home with the children. It, too, requires particular nourishments in order to flourish.

The choice of a type of marriage is of course not entirely conscious. At its best the choice reflects the partners' unique conscious and unconscious fit. But it is within the couple's power to nurture the marriage and prevent its deterioration.

A good marriage is a process of continual change as it reflects new issues, deals with problems that arise, and uses the resources available at each stage of life. All long-lasting marriages change, if simply because we all change as we grow older. People's needs, expectations, and wishes change during the life cycle; biological aging is intertwined with psychological change in every domain, including work, health, sex, parenting, and friends. The social milieu and external circumstances change as well. Thus the individuals change, the marriage changes, and the world outside changes—and not necessarily in sync with one another. As one woman said, "John and I have had at least six different marriages."

Many men and women are still becoming adults as they work on the first chapter of their lives together—getting to know each other sexually, emotionally, and psychologically. This time of absorbing exploration is critically important for defining the couple's core relationship. Sadly, many couples find they cannot navigate this difficult first leg of the course. But if they do succeed, they will have a sturdy foundation for the structure of their marriage.

The birth of a child entirely revamps the internal landscape of marriage. Becoming a father or mother is a major step in the life course, a step that requires inner psychological growth as well as changes in every part of the marital relationship and in the extended family. It is also usually a time when one or both partners have made career commitments; the tough road of the workplace stretches ahead, and its stresses are high.

For many people the years when the children are growing up is the busiest time of their lives. A central issue is balancing the demands of work and of home. Children's needs for parental time and attention multiply along with the continuing demands of the workplace and often of school. Many couples cannot find enough time to be together even to exchange greetings, let alone make love.

The course of marriage changes again when children become adolescents, when parents dealing with midlife issues and presentiments of aging are suddenly faced with sexually active youngsters. The growing dependency, illness, or death of the spouses' own aging parents adds further turbulence to this period. When the children leave home, the couple must find each other

again and rebuild their relationship. This new stage provides an opportunity to re-create the marriage in a different mold, perhaps with time to travel and play together. If a husband and wife have not succeeded in building a good marriage by now, they may find themselves merely sharing a household.

A later part of the journey is retirement, when issues of dependency and illness, as well as the opportunity to pursue new hobbies and interests and the continuing need for sexuality, take center stage. Once again the marriage is redefined, as the couple face life's final chapters and inevitably consider the loss of the partner and their own deaths.

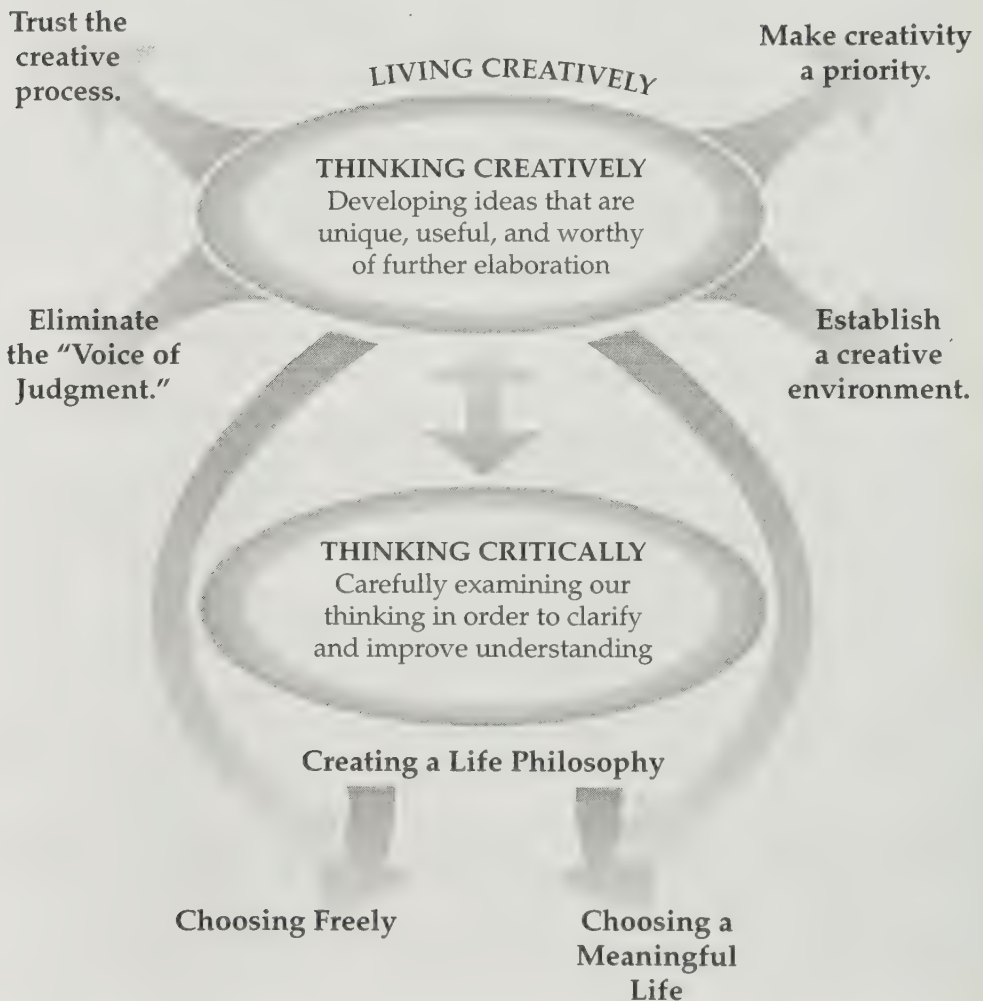
All through adulthood our internal lives change as we create new images of ourselves and call up old images from the past. At each stage we draw on different memories and wishes, pulling them out like cards from a deck held close to the heart. The birth of a child draws on the memories and unconscious images of each parent's own infancy and childhood. That child's adolescence evokes the memories and conflicts of one's own teen years. Parents, watching their teenagers assert their independence, remember their own risk-taking behavior and realize that they were often saved from disaster by the skin of their teeth. And as old age approaches, every person draws on the experiences of prior losses in the family. . . .

### *Questions for Analysis*

1. Describe the process that Wright believes was involved in the evolution of monogamy as the preferred form for romantic relationships.
2. Analyze your own experience in looking for and finding prospective romantic partners. To what extent is Wright's "evaluation" consistent with the way in which you try to find romantic partners? In what way is your process of selecting different?
3. Do you think Wallerstein's conceptual scheme is an accurate representation of long-term romantic relationships? Why or why not? Can you think of any categories that are missing? Which ones?
4. Have you had experience with any of the types of relationships Wallerstein describes? Which ones? In looking ahead toward marriage or other long-term relationship or in continuing your current relationship, which type (or types) are you aiming for?
5. Evaluate Wallerstein's suggestions for developing healthy relationships. If you were developing your own list of key ingredients for healthy relationships, what would be on that list?



CHAPTER  
**7**  
THINKING CRITICALLY,  
LIVING CREATIVELY,  
WORKING COLLABORATIVELY



THINKING CRITICALLY AND THINKING CREATIVELY are two essential and tightly interwoven dimensions of the thinking process. These two forms of thinking work as partners to produce effective thinking, enabling us to make informed decisions and lead successful lives.

<b>Thinking Creatively</b>	The cognitive process we use to develop ideas that are unique, useful, and worthy of further elaboration
----------------------------	--

<b>Thinking Critically</b>	The cognitive process we use to carefully examine our thinking (and the thinking of others) in order to clarify and improve our understanding
----------------------------	---

For example, imagine that you are confronted with a problem to solve. *Thinking critically* enables you to identify and accept the problem. When you generate alternatives for solving the problem, you are using your *creative thinking* abilities, while when you evaluate the various alternatives and select one or more to pursue, you are *thinking critically*. Developing ideas for implementing your alternative(s) involves *thinking creatively*, while constructing a practical plan of action and evaluating the results depends on *thinking critically*.

It is apparent that *thinking creatively* and *thinking critically* interact in continuous and complex relationships in the mind of an effective thinker. Although this text has emphasized critical thinking abilities, creative thinking has been involved in every part of our explorations of the mind. In this chapter, we will shift the emphasis to creative thinking, working to gain insight into this powerful and mysterious dimension of the thinking process.

---

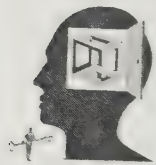
## LIVING CREATIVELY

You are an artist, creating your life portrait, and your paints and brush strokes are the choices you make each day of your life. This metaphor provides you with a way to think about your personal development and underscores your responsibility for making the most intelligent decisions possible.

Sometimes students become discouraged about their lives, concluding that their destinies are shaped by forces beyond their control. Although difficult circumstances *do* hamper our striving for success, this fatalistic sentiment can also reflect a passivity that is the opposite of thinking critically. As a critical thinker, you should be confident that you can shape the person that you want to become through insightful understanding and intelligent choices.

In working with this book, you have been developing the abilities and attitudes needed to become an educated thinker and a successful person. In this final chapter, we will integrate these goals into a larger context, exploring how to live a life that is creative, professionally successful, and personally fulfilling. By using both your creative and your critical thinking abilities, you can develop informed beliefs and an enlightened life philosophy. In the final analysis, the person who looks back at you in the mirror is the person you have created.

### THINKING ACTIVITY 7.1 *DESCRIBING YOUR CURRENT AND FUTURE SELF*



1. Describe a portrait of yourself as a person. What sort of person are you? What are your strengths and weaknesses? In what areas do you feel you are creative?
2. Describe some of the ways you would like to change yourself. ◀

Every day you encounter a series of choices, forks in your life path that have the cumulative effect of defining you as a person. For example: What will be my schedule for the day? Whom will I seek out, and what will I say? Will I participate in class? What will be my social agenda for the day? How will I approach my studying? What will I do after school: exercise? sleep? watch television? write in my journal? compose a poem?

In thinking about these questions, you may discover that there are habitual patterns in your life that rarely change. If you find that your life is composed of a collection of similar activities and routines, don't despair; this is typical, not unusual. However, it may be an indication that you are not living your life in the most creative fashion possible, that your choices have become automatic, and that your experiences are fixed in certain "ruts." If this is the case, it may be time to reflect on your life, reevaluate the choices you are making, and consider living your life in a more creative fashion.

Over 2,000 years ago the Greek philosopher Socrates said: "The unexamined life is not worth living." In saying this, he was suggesting that if you



*You are an artist, creating your life portrait, and your paints and brush strokes are the choices that you make each day of your life.*

live unreflectively, simply reacting to situations and not trying to explore life's deeper meanings, then your life has diminished value. An unreflective person is not making use of the distinctive human capacity to think deeply about important issues and develop thoughtful conclusions about herself and her world.

Conversely, humans have a nearly limitless capacity to be creative, our imaginations giving us the power to conceive of new possibilities and put these



innovative ideas into action. Using creative resources in this way enriches our lives and brings a special meaning to our activities. Although we might not go to the extreme of saying that “the *uncreative* life is not worth living,” it is surely preferable to live a life enriched by the qualities of creativity.

### *Can I Be Creative?*

The first day of my course, “Creative Thinking: Theory and Practice,” I always ask the students in the class if they think they are creative. Typically less than half of the class members raise their hands. One reason for this is that people often confuse being “creative” with being “artistic”—skilled at art, music, poetry, creative writing, drama, dance. Although artistic people are certainly creative, there are an infinite number of ways to be creative that are *not* artistic. This is a mental trap that I fell into growing up. In school, I always dreaded art class because I was so inept. My pathetic drawings and art projects were always good for a laugh for my friends, and I felt no overwhelming urges to write poetry, paint, or compose music. I was certain that I had simply been born “uncreative” and accepted this “fact” as my destiny. It wasn’t until I graduated from college that I began to change this view of myself. I was working as a custom woodworker to support myself, designing and creating specialized furniture for people when it suddenly struck me: I was being creative! I then began to see other areas of my life in which I was creative: playing sports, decorating my apartment, even writing research papers. I finally understood that being creative was a state of mind and a way of life. As the writer Eric Gill expresses it: “The artist is not a different kind of person, but each one of us is a different kind of artist.”

Are you creative? Yes! Think of all of the activities that you enjoy doing: cooking, creating a wardrobe, raising children, playing sports, cutting or braiding hair, dancing, playing music. Whenever you are investing your own personal ideas, putting on your own personal stamp, you are being creative. For example, imagine that you are cooking your favorite dish. To the extent that you are expressing your unique ideas developed through inspiration and experimentation, you are being creative. Of course, if you are simply following someone else’s recipe without significant modification, your dish may be tasty—but it is not creative. Similarly, if your moves on the dance floor or the basketball court express your distinctive personality, you are being creative, as you are when you stimulate the original thinking of your children or make your friends laugh with your unique brand of humor.

Living your life creatively means bringing your unique perspective and creative talents to all of the dimensions of your life. The following passages are





*"If you do not expect the unexpected you will not find it, for it is not to be reached by search or trail." —Heraclitus*

written by students about creative areas in their lives. After reading the passages, complete Thinking Activity 7.2, which gives you the opportunity to describe a creative area from your own life.

One of the most creative aspects of my life is my diet. I have been a vegetarian for the past five years, while the rest of my family has continued to eat meat. I had to overcome many obstacles to make this lifestyle work for me, including family dissension. The solution was simple: I had to learn how to cook creatively. I have come to realize that my diet is an ongoing learning process. The more I learn about and experiment with different foods, the healthier and happier I become. I feel like an explorer setting out on my own to discover new things about food and nutrition. I slowly evolved from a person who could cook food only if it came from a can into someone who could make bread from scratch and grow yogurt cultures. I find learning new things about nutrition and cooking healthful foods very relaxing and rewarding. I like being alone in my house baking bread; there is something very comforting about the aroma. Most of all I like to experiment with different ways to prepare foods, because the ideas are my own. Even when an effort is less than successful, I find pleasure in the knowledge that I gained from the experience. I discovered recently, for example, that eggplant is terrible in soup! Making mistakes seems to be a natural way to increase creativity, and I now firmly believe that people who say that they do not like vegetables simply have not been properly introduced to them!

As a tropical fish hobbyist, I create an ecosystem most suited to the variety of fish I keep. My most recent choice of fish has been pacus, a close cousin of the Piranha native to South America and Africa. I then added two barracuda of the same approximate size. These two genera are nervous, aggressive fish not ordinarily found

together in nature. As “dither fish,” which are used as a distraction between two or more genera, I chose two Jack Dempseys, which are large, territorial cichlids. Since these fish require different habitats, it was necessary to create a blend of environments. The pacus need an area to be well planted, providing cover, which I placed in the corners of the aquarium. The Dempseys require rocks, caves, and tree branches to do their cavorting and establish their domain. The barracuda, being the most dominant and aggressive of the lot, got the center area of the tank to swim about freely. When raising fish, you become familiar with their distinct personalities, and you have to be both knowledgeable and creative to develop appropriate habitats for them.

As any parent knows, children have an abundance of energy to spend, and toys or television do not always meet their needs. In response, I create activities to stimulate their creativity and preserve my sanity. For example, I involve them in the process of cooking, giving them the skin from peeled vegetables and a pot so they make their own “soup.” Using catalogs, we cut out pictures of furniture, rugs, and curtains, and they paste them onto cartons to create their own interior decors: vibrant living rooms, plush bedrooms, colorful family rooms. I make beautiful boats from aluminum foil, and my children spend hours in the bathtub playing with them. We “go bowling” with empty soda cans and a ball, and they star in “track meets” by running an obstacle course we set up. When it comes to raising children, creativity is a way of survival!

After quitting the government agency I was working at because of too much bureaucracy, I was hired as a carpenter at a construction site, although I had little knowledge of this profession. I learned to handle a hammer and other tools by watching other co-workers, and within a matter of weeks I was skilled enough to organize my

own group of workers for projects. Most of my fellow workers used the old-fashioned method of construction carpentry, building panels with inefficient and poorly made bracings. I redesigned the panels in order to save construction time and materials. My supervisor and site engineer were thrilled with my creative ideas, and I was assigned progressively more challenging projects, including the construction of an office building that was completed in record time.

My area of creativity is hair braiding, an activity that requires skill, talent, and patience that is difficult for most people to accomplish. Braiding hair in styles that are being worn today consists of braiding small to tiny braids, and it may include adding artificial hair to make the hair look fuller. It takes anywhere from ten to sixteen hours depending on the type of style that is desired: the smaller the braids, the longer it takes. In order to braid, I had to learn how to determine the right hair and color for people who wanted extensions, pick out the right style that would fit perfectly on my customers' faces, learn to cut hair in an asymmetric fashion, put curls in the braids, and know the sequence of activities. Doing hair is a rewarding experience for me because when I am through with my work, my customers think the result is gorgeous!

### THINKING ACTIVITY 7.2 *DESCRIBING A CREATIVE AREA*



1. Describe a creative area of your life in which you are able to express your unique personality and talents. Be specific and give examples.
2. Analyze your creative area by answering the following questions:
  - Why do you feel that this activity is creative? Give examples.
  - How would you describe the experience of being engaged in this activity? Where do your creative ideas come from? How do they develop?
  - What strategies do you use to increase your creativity? What obstacles block your creative efforts? How do you try to overcome these blocks? ◀

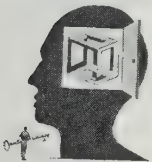


## *Becoming More Creative*

Although we each have nearly limitless potential to live creatively, most people use only a small percentage of their creative gifts. In fact, there is research to suggest that people typically achieve their highest creative point as young children, after which there is a long, steady decline into uncreativity. Why? Well, to begin with, young children are immersed in the excitement of exploration and discovery. They are eager to try out new things, act on their impulses, and make unusual connections between disparate ideas. They are not afraid to take risks in trying out untested solutions, and they are not compelled to identify the socially acceptable “correct answer.” Children are willing to play with ideas, creating improbable scenarios and imaginative ways of thinking without fear of being ridiculed.

All of this tends to change as we get older. The weight of “reality” begins to smother our imagination, and we increasingly focus our attention on the nuts and bolts of living rather than on playing with possibilities. The social pressure to conform to group expectations increases dramatically. Whether the group is our friends, schoolmates, or fellow employees, there are clearly defined “rules” for dressing, behaving, speaking, and thinking. When we deviate from these rules, we risk social disapproval, rejection, or ridicule. Most groups have little tolerance for individuals who want to think independently and creatively. As we become older, we also become more reluctant to pursue untested courses of action, because we become increasingly afraid of failure. Pursuing creativity inevitably involves failure, because we are trying to break out of established ruts and go beyond traditional methods. For example, going beyond the safety of a proven recipe to create an innovative dish may involve some disasters, but it’s the only way to create something genuinely unique. The history of creative discoveries is littered with failures, a fact we tend to forget when we are debating whether we should risk an untested idea. Those people who are courageous enough to risk failure while expressing their creative impulses are rewarded with unique achievements and an enriched life.

### **THINKING ACTIVITY 7.3** *IDENTIFYING CREATIVE BLOCKS*



Reflect on your own creative development and describe some of the fears and pressures that inhibit your own creativity. For example, have you ever been penalized for trying out a new idea that didn’t work out? Have you ever suffered the wrath of the group for daring to be different and violate the group’s unspoken rules? Do you feel that your life is so filled with responsibilities and the demands of reality that you don’t have time to be creative? ◀



*Our creativity is often inhibited by the social pressure to conform to group expectations, and deviations from the established social "rules" often involve risking social disapproval, rejection, or ridicule. However, when we are able to resist group pressure and express our own creative impulses, such actions enrich our lives.*

Although the forces that discourage us from being creative are powerful, they can nevertheless be overcome with the right approaches. We are going to explore four productive strategies:

- Understand and trust the creative process
- Eliminate the “Voice of Judgment”
- Establish a creative environment
- Make creativity a priority

*Understand and Trust the Creative Process* Discovering your creative talents requires that you understand how the creative process operates and then have confidence in the results it produces. There are no fixed procedures or formulas for generating creative ideas because creative ideas *by definition* go beyond established ways of thinking to the unknown and the innovative. As the ancient Greek philosopher Heraclitus once said: “You must expect the unexpected, because it cannot be found by search or trail.”

Although there is no fixed path to creative ideas, there are activities you can pursue that make the birth of creative ideas possible. In this respect, generating creative ideas is similar to gardening. You need to prepare the soil; plant the seeds; ensure proper water, light, and food; and then be patient until the ideas begin to sprout. Here are some steps for cultivating your creative garden:

- *Absorb yourself in the task:* Creative ideas don’t occur in a vacuum. They emerge after a great deal of work, study, and practice. For example, if you want to come up with creative ideas in the kitchen, you need to become knowledgeable about the art of cooking. The more knowledgeable you are, the better prepared you are to create valuable and innovative dishes. Similarly, if you are trying to develop a creative perspective for a research paper in college, you need to immerse yourself in the subject, developing an in-depth understanding of the central concepts and issues. Absorbing yourself in the task “prepares the soil” for your creative ideas.
- *Allow time for ideas to incubate:* After absorbing yourself in the task or problem, the next stage in the creative process is to *stop* working on the task or problem. Although your conscious mind has stopped actively working on the task, the unconscious dimension of your mind continues working—processing, organizing, and ultimately generating innovative ideas and solutions. This process is known as *incubation* because it mirrors the process in which baby chicks gradually evolve inside the egg until the moment comes when they break out through the shell. In

the same way, your creative mind is at work while you are going about your business until the moment of *illumination*, when the incubating idea finally erupts to the surface of your conscious mind. People report that these illuminating moments—when their mental light bulbs go on—often occur when they are engaged in activities completely unrelated to the task. One of the most famous cases was that of the Greek thinker Archimedes, whose moment of illumination came while he was taking a bath, causing him to run naked through the streets of Athens shouting “Eureka” (“I have found it”).

- *Seize on the ideas when they emerge and follow them through:* Generating creative ideas is of little use unless you recognize them when they appear and then act on them. Too often people don’t pay much attention to these ideas when they occur, or they dismiss them as too impractical. You have to have confidence in the ideas you create, even if they seem wacky or far out. Many of the most valuable inventions in our history started as improbable ideas, ridiculed by the popular wisdom. For example, the idea of Velcro started with burrs covering the pants of the inventor as he walked through a field, and Post-it Notes resulted from the accidental invention of an adhesive that was weaker than normal. In other words, thinking effectively means thinking creatively *and* thinking critically. After you use your *creative thinking* abilities to generate innovative ideas, you then must employ your *critical thinking* abilities to evaluate and refine the ideas and design a practical plan for implementing them.

***Eliminate the “Voice of Judgment”*** The biggest threat to our creativity lies within ourselves, the negative “Voice of Judgment” (VOJ).<sup>\*</sup> The VOJ can undermine your confidence in every area of your life, including your creative activities, with statements like:

“This is a stupid idea and no one will like it.”

“Even if I could pull this idea off, it probably won’t amount to much.”

“Although I was successful the last time I tried something like this, I was lucky and I won’t be able to do it again.”

These statements, and countless others like them, have the ongoing effect of making us doubt ourselves and the quality of our creative thinking. As we lose

<sup>\*</sup> This is a term coined by Michael Ray and Rochelle Myers, authors of *Creativity in Business*, a book on creativity based on a Stanford University course.



confidence, we become more timid, reluctant to follow through on ideas and present them to others. After a while our cumulative insecurity discourages us from even generating ideas in the first place, and we end up simply conforming to established ways of thinking and the expectations of others. And in so doing we surrender an important part of ourselves, the vital and dynamic creative core of our personality that defines our unique perspective on the world.

Where do these negative voices come from? Often they originate in the negative judgments we experienced while growing up, destructive criticisms that become internalized as a part of ourselves. In the same way that praising children helps make them feel confident and secure, consistently criticizing them does the opposite. Although parents, teachers, and acquaintances often don't intend these negative consequences with their critical judgments and lack of positive praise, the unfortunate result is still the same: a Voice of Judgment that keeps hammering away at the value of ourselves, our ideas, and our creations. As a teacher, I see the VOJ evident when students present their creative projects to the class, with apologies like "This isn't very good and it probably doesn't make sense."

How do we eliminate this unwelcome and destructive voice within ourselves? There are a number of effective strategies you can use, although you should be aware that the fight, while worth the effort, will not be easy.

- *Become aware of the VOJ:* You have probably been listening to the negative messages of the VOJ for so long that you may not even be consciously aware of it. To conquer the VOJ, you need to first recognize when it speaks. In addition, it is helpful to analyze the negative messages, try to figure out how and why they developed, and then create strategies to overcome them. A good strategy is to keep a VOJ journal, described in Thinking Activity 7.4.
- *Restate the judgment in a more accurate or constructive way:* Sometimes there is an element of truth in our self-judgments, but we have blown the reality out of proportion. For example, if you fail a test, your VOJ may translate this as "I'm a failure." Or if you ask someone for a date and get turned down, your VOJ may conclude: "I'm a social misfit with emotional bad breath!" In these instances, you need to translate the reality accurately: "I failed this test—I wonder what went wrong and how I can improve my performance in the future," and "This person turned me down for a date—I guess I'm not his/her type, or maybe he/she just doesn't know me well enough."
- *Get tough with the VOJ:* You can't be a wimp if you hope to overcome the VOJ. Instead, you have to be strong and determined, telling yourself as

soon as the VOJ appears: “I’m throwing you out and not letting you back in!” This attack might feel peculiar at first, but it will soon become an automatic response when those negative judgments appear. Don’t give in to the judgments, even a little bit, by saying, “Well, maybe I’m just a little bit of a jerk.” Get rid of the VOJ entirely, and good riddance to it!

- *Create positive voices and visualizations:* The best way to destroy the VOJ for good is to replace it with positive encouragements. As soon as you have stomped on the judgment “I’m a jerk,” you should replace it with “I’m an intelligent, valuable person with many positive qualities and talents.” Similarly, you should make extensive use of positive visualization, as you “see” yourself performing well on your examinations, being entertaining and insightful with other people, and succeeding gloriously in the sport or dramatic production in which you are involved. If you make the effort to create these positive voices and images, they will eventually become a natural part of your thinking. And since positive thinking leads to positive results, your efforts will become self-fulfilling prophecies.
- *Use other people for independent confirmation:* The negative judgments coming from the VOJ are usually irrational, but until they are dragged out into the light of day for examination, they can be very powerful. Sharing our VOJ with others we trust is an effective strategy because they can provide an objective perspective that reveals to us the irrationality and destructiveness of these negative judgments. This sort of “reality testing” strips the judgments of their power, a process that is enhanced by the positive support of concerned friends with whom we have developed relationships over a period of time.

### THINKING ACTIVITY 7.4 *COMBATting THE “VOICE OF JUDGMENT”*



1. Take a small notebook or pad with you one day and record every negative judgment that you make about yourself. At the end of the day, classify your judgments by category. For example: negative judgments about your physical appearance, your popularity with others, your academic ability, and so on.
2. Analyze the judgments in each of the categories and try to determine where they came from and how they developed.
3. Use the strategies described in this section, and others of your own creation, to start fighting these judgments when they occur. ◀

***Establish a Creative Environment*** An important part of eliminating the negative voices in our minds is to establish environments in which our creative resources can flourish. This means finding or developing physical environments conducive to creative expression as well as supportive social environments. Sometimes working with other people is stimulating and energizing to our creative juices; at other times we require a private place where we can work without distraction. For example, I have a specific location in which I do much of my writing: sitting on a comfortable couch, with a calm, pleasing view, music on the stereo, a cold drink, and a supply of Tootsie Roll Pops. I'm ready for creativity to strike me, although I sometimes have to wait for some time! Different environments work for different people: you have to find the environment(s) best suited to your own creative process and then make a special effort to do your work there.

The people in our lives who form our social environment play an even more influential role in encouraging or inhibiting our creative process. When we are surrounded by people who are positive and supportive, this increases our confidence and encourages us to take the risk to express our creative vision. They can stimulate our creativity by providing us with fresh ideas and new perspectives. By engaging in *brainstorming* (described on page 124) they can work with us to generate ideas and then later help us figure out how to refine and implement the most valuable ones.

However, when the people around us tend to be negative, critical, or belittling, then the opposite happens: we lose confidence and are reluctant to express ourselves creatively. Eventually, we begin to internalize these negative judgments, incorporating them into our own VOJ. When this occurs, we have the choice of telling people that we will not tolerate this sort of destructive behavior, or, if they can't improve their behavior, moving them out of our lives. Of course, sometimes this is difficult because we work with them or they are related to us. In this case, we have to work at diminishing their negative influence and spending more time with those who support us.

***Make Creativity a Priority*** Having diminished the voice of negative judgment in your mind, established a creative environment, and committed yourself to trusting your creative gifts, you are now in a position to live more creatively. How do you actually do this? Start small. Identify some habitual patterns in your life and break out of them. Choose new experiences whenever possible—for example, ordering unfamiliar items on a menu or getting to know people outside of your circle of friends—and strive to develop fresh perspectives on things in your life. Resist falling back into the ruts you were previously in by remembering that living things are supposed to be continually growing,



*Using creative resources enriches our lives and brings a special meaning to our activities.*



changing, and evolving, not acting in repetitive patterns like machines. The following student essay summarizes many of the reasons why choosing to live creatively may be one of the most fulfilling decisions that you ever make.

### **CREATIVITY**

**by Michelle Austin**

Creativity is an energizing force: powerful, generative, productive. Sadly, for the most part, its potential remains unused, as men and women circle the periphery of its domain. The author Kahlil Gibran writes: "For the self is a sea, boundless and measureless," and for many of us that sea remains largely undiscovered. Creativity is a treasure that if nurtured can become a harvest of possibilities and riches. Why is creativity important? Very simply, creativity brings fulfillment and enrichment to every dimension of our lives. A creative disposition sees difficulties not as problems but as challenges to be met. The intuitive thinker draws upon the combined resources of insight, illumination, imagination and an inner strength. He puts ideas and strategies into effect, while developing a sense of competency and control over his environment. Creativity fosters limitless opportunities because it draws upon the power of discovery and invention.

Creativity's realm is in the vast uncharted portions of the mind. What we call full consciousness is a very narrow thing, and creativity springs from the unknown and unconscious depths of our being. In the words of Gibran: "Vague and nebulous is the beginning of all things." Creativity always begins with a question and we must abandon preconceived ideas and expectations. But while the phenomenon of creativity involves innovating, developing, playing and speculating, there must ultimately be a point of synthesis. Ideas in flight are of little use; a convergence and application gives substance to our visions. Fostering our creative gifts is a lifelong project. The Buddhists use the term "mindfulness" to describe the creative state of being. Mindfulness involves developing

an openness to ideas, suggestions and even once discarded thoughts. The goal is to increase our sensitivity and awareness to the mystery and beauty of life. We must adopt a playful attitude, a willingness to fool around with ideas, with the understanding that many of these fanciful notions will not be relevant or practical. But some will, and these creative insights can lead to profound and wondrous discoveries. At the same time, cultivating a creative attitude stretches our imaginations and makes our lives vibrant and unique.

Worry and mental striving create anxiety that clogs rather than stimulates the flow of ideas. It is impossible to impose one's will with brute force on the chaos. We must be gentle with ourselves, harmonize rather than try to conquer, and in the words of Albert Einstein, "The solution will present itself quietly and say 'Here I am.'" And while we need critical evaluation to provide direction and focus for our creative efforts, a premature and excessive critical judgment suppresses, overpowers and smothers creative spontaneity. This "Voice of Judgment" shrinks our creative reservoir and undermines our courage to take creative risks. The author Napoleon Hill has stated, "Whatever the mind can conceive and believe, it can achieve." Similarly, if we approach our lives with a mindful sense of discovery and invention, we can continually create ourselves in ways that we can only imagine. In such lives, there are no predetermined outcomes, only creativity searching for seeds of progress.

### THINKING ACTIVITY 7.5 *BECOMING MORE CREATIVE*



Select an area of your life in which you would like to be more creative: it can be in school, on your job, an activity you enjoy, or your relationship with someone. Make a special effort to inject a fresh perspective and new ideas into your area and keep a journal recording your efforts and their result. Be sure to allow yourself sufficient time to break out of your ruts and establish new patterns of thinking, feeling, and behaving. Focus on your creative antennae as you "expect the

unexpected” and pounce on new ideas when they emerge from the depths of your creative resource. ◀

---

## LIVING A LIFE PHILOSOPHY

As the artist of your own life, your brush strokes express your philosophy of life, a vision that incorporates your most deeply held values, aspirations, and convictions. The challenge you face is to create a coherent view of the world that expresses who you are as well as the person you want to become. It should be a vision that not only guides your actions but also enables you to understand the value of your experiences, the significance of your relationships, and the meaning of your life.

The quality of your life philosophy is a direct result of your abilities to *think critically* and *think creatively*, abilities that you have been developing while working on activities presented throughout this book. But a life philosophy is incomplete until it is *acted upon* through the decisions you make, decisions made possible by your ability to *choose freely*. These are the three life-principles of human transformation upon which this book is based. These three principles are interlocking pieces of the puzzle of your life. Working together as a unified force, these principles can illuminate your existence: answering questions, clarifying confusion, creating meaning, and providing fulfillment.

- **Think Critically:** When used properly, your thinking process acts like a powerful beacon of light, illuminating the depths of your personality and the breadth of your experience. Clear thinking is a tool that helps you disentangle the often-confused jumble of thoughts and feelings that compose much of your waking consciousness. By becoming a more powerful “critical thinker,” you are acquiring the abilities you need to achieve your goals, solve problems, and make intelligent decisions. Critical thinkers are people who have developed thoughtful and well-founded beliefs to guide their choices in every area of their lives. In order to develop the strongest and most accurate beliefs possible, you need to become aware of your own biases, explore situations from many different perspectives, and develop sound reasons to support your points of view.
- **Live Creatively:** Creativity is a powerful life force that can infuse your existence with meaning. Working in partnership with critical thinking, creative thinking helps you transform your life into a rich tapestry of

productivity and success. When you approach your life with a mindful sense of discovery and invention, you can continually create yourself in ways limited only by your imagination. A creative lens changes everything for the better: problems become opportunities for growth, mundane routines become challenges for inventive approaches, relationships become intriguing adventures. When you give free rein to your creative impulses, every aspect of your life takes on a special glow. You are able to break out of unthinking habitual responses and live fully in every minute, responding naturally and spontaneously. It sounds magical, and it is.

- **Choose Freely:** People can only transform themselves if they *choose* to take different paths in their lives—but only if their choices are *truly free*. To exercise *genuine* freedom, you must have the insight to understand all of your options and the wisdom to make *informed* choices. When you fully accept your freedom, you redefine your daily life and view your future in a new light. By working to neutralize the constraints on your autonomy and guide your life in positive directions, you see alternatives that were not previously visible, having been concealed by the limitations of your previous vision. Your future becomes open, a field of rich possibilities that you can explore and choose among. A life that is free is one that is vital and exciting, suffused with unexpected opportunities and the personal fulfillment that comes from a life well lived.

Your “self” is, in its essence, a dynamic life-force that is capable of *thinking critically, creating, and choosing freely*. These three essential dimensions of your “self” exist optimally when they work together in harmonious unity. When working together, these three basic elements create a person who is *intelligent, creative, and determined*—the ingredients for success in any endeavor. But consider the disastrous consequences of subtracting any of these elements from the dynamic equation. If you lack the ability to *think critically*, you won’t be able to function very well in most challenging careers because you will have difficulty thinking clearly, solving complex problems, and making intelligent decisions. What’s more, whatever creative ideas you come up with will be rootless, lacking an intelligible framework or practical strategies for implementing them. You will be an impractical dreamer, condemned to a life of frustrated underachieving. Without insight into yourself, your freedom will be imprisoned since you won’t be able to see your choices clearly or to liberate yourself from the influences that are constraining you.

If you lack the ability to *think creatively*, then your thinking abilities may enable you to perform in a solid, workmanlike fashion, but your work will lack



imagination, you will be afraid to try original approaches because of the risk of failure, and your personality will be lacking the spontaneous sparkle that people admire and are drawn to. You will in time become a competent but unimaginative “worker-bee,” performing your duties with predictable adequacy but never rising to the lofty heights that you are capable of attaining. Your choices will be as limited as your imagination, and your habitual choices of safe and secure paths will eventually create a very small canvas for your personal portrait.

If you lack the ability to *choose freely*, then your abilities to think critically or creatively cannot save you from a life of disappointment. Though you may be able to clearly analyze and understand, you will lack the will to make the difficult choices and stay the course when you encounter obstacles and adversities. And though you may develop unique and valuable ideas, your inability to focus your energies and make things happen will doom these ideas to anonymity. Because you lack the *will* to create yourself as a strong individual of character and integrity, the people you encounter will come to view you as a shallow-rooted reed that bends with the wind of superficial trends, not as someone deserving of authority and responsibility.

Think of what you aspire to have: a life of purpose and meaning, the respect and devotion of those around you, success and fulfillment in your chosen endeavors, and a secure sense of who you are, a person with the courage and vision to accomplish great things. These aspirations are within your grasp, but only if you develop all of these fundamental dimensions of your self to their fullest potential: the abilities to *think critically*, *think creatively*, and *choose freely*.

### *Choosing Freely*

You have the power to create yourself through the choices that you make, but only if your choices are truly free. To exercise genuine freedom, you must possess the insight to understand all of your options and the wisdom to make informed choices. In many instances passive, illogical, and superficial thinking inhibits people’s abilities to make intelligent choices and erodes their motivation to persevere when obstacles are encountered. You can learn to redefine your daily life in a new light and enhance its value through free choices derived from thinking critically and creatively. The problem is that we get so caught up in routine, so mired in the day-to-day demands of reality and the pressures of conformity, that we don’t even *see* alternatives to our condition, much less act on them. Our complaints often far outnumber our shining moments, as we tend to focus on the forces and people that have thwarted our intentions:

*"If only that person hadn't sabotaged my career, I would have . . ."*

*"If only I had had a chance to meet the right person . . ."*

*"If only I had gotten the breaks now and then . . ."*

*"If only I could get rid of my habitual tendency to ———, I would . . ."*

*"If only other people were as dependable and caring as I am . . ."*

*"If only I had been given the advantages of a different background . . ."*

*"If only the world had not become so competitive . . ."*

*"If only I had been given the opportunity to show what I could do . . ."*

These complaints, and the millions of others like them, bitterly betray W. E. Hanley's notion that *"I am the master of my fate, I am the captain of my soul."* It is much more common for people to believe that fate mastered them and that they never had sufficient opportunity to live life *"their way."* Instead of feeling free, we often feel beleaguered, trying desperately to prevent our small dinghy from getting swamped in life's giant swells, rather than serenely charting a straight course in our sleek sailboat.

The end result is that when people think of *"being free,"* they often conjure up a romantic notion of *"getting away"* from their concerns and the responsibilities, imagining a world where anything is possible, and there is plenty of money to pay for it. However appealing this fantasy may be, it is a misconceived and unrealistic notion of freedom. Genuine freedom consists of making thoughtful choices from among the available options, choices which reflect your genuine desires and deepest values, and resisting the pressures to surrender your autonomy to external pressures *or* internal forces. How can you accomplish this?

To begin with, you need to *make freedom a priority* in your life. Achieving grater freedom for yourself is based on placing a high value on personal freedom. If you are primarily focused on meeting your needs within the existing structure of your life, then maximizing your choices and enlarging the scope of your life may not be a top priority. However, if you feel dissatisfied with the status quo and long to increase your options and your ability to choose them, increasing your personal freedom will be a very important goal.

**Strategy:** Complete a brief inventory of your life, identifying some of the areas you would like to change, as well as those you are basically satisfied with but would like to enrich. Think about the ways in which increasing your personal freedom and making different choices could help you achieve these life goals.

A second strategy for increasing your personal freedom is to *willingly accept your freedom and responsibility.* The most important and disturbing element of

personal freedom is that it necessarily involves *personal responsibility*. And personal responsibility is the main reason why people are so reluctant to embrace their freedom and, in fact, actively seek to “escape” from it. If you acknowledge that your choices are *free*, then you must accept that you are *responsible* for the outcome resulting from your choices. When people are successful, it is easy for them to take full responsibility for their accomplishments. But when failure occurs, people tend to dive for cover, blaming others or forces beyond their control. This is exactly what’s going on in all the “*If only*” statements listed previously and any others like them: they each express the belief that if only some *outside force* had not intervened, the person would have achieved the goal she had set for herself. However, in many instances, these explanations are bogus, and these efforts to escape from freedom are illegitimate. They represent weak and inauthentic attempts to deny freedom *and* responsibility.

Your reaction to responsibility is an effective barometer of your attitude toward freedom. If you are comfortable with your personal responsibility, able openly to admit your mistakes as well as to take pleasure in your successes, this attitude is an indication that you accept your freedom. Similarly, if you take pride in your independence, welcoming the opportunity to make choices for which you are solely responsible, this attitude also reveals a willing embracing of your freedom.

**Strategy:** Create a “responsibility chart” that evaluates your acceptance of responsibility (and freedom) in various areas of your life. On one side of the page, describe common activities in which you are engaged (“Decisions at work,” “Conflicts with my partner”), and on the other side, list typical judgments that you make (“I am solely responsible for that mistaken analysis,” “You made me do that embarrassing thing, and I can’t forgive you”). After several days of record-keeping and reflection, you should begin to get an increasingly clear picture of the extent to which you accept (or reject) our personal freedom.

A third way to increase your freedom is to *emphasize your ability to create yourself*. Although you may not be fully aware of it, you have your own psychological theory of human nature, which is expressed in how you view yourself and deal with other people. Do you believe that your personality is determined by your genetic history or by the environmental circumstances that have shaped you? Or do you believe that people are able to transcend their histories and choose freely?

**Strategy:** Instead of explaining your (and others’) behavior entirely in terms of genes and environmental conditioning, develop the habit of analyzing your behavior in

*terms of the choices you make. Many people triumph over daunting odds while others fail miserably, despite having every advantage in life. The key ingredients? An unshakable belief in the ability to choose one's destiny and the determination to do so.*

Increasing your freedom necessarily involves *becoming aware of constraints on your freedom and willing yourself to break free from them*. Freedom consists of making thoughtful choices which reflect your authentic self: your genuine desires and deepest values. But there are many forces which threaten to limit your freedom and even repress it altogether. The limits to your freedom can either come from outside yourself—*external constraints*—or they can come from within yourself—*internal constraints*. While external factors may limit your freedom—for example, being incarcerated or working at a dead-end job—the more challenging limits are imposed by yourself through internal constraints. For instance, people don't generally procrastinate, smoke, suffer anxiety attacks, feel depressed, or engage in destructive relationships because someone is coercing them to do so. Instead, they are *victimizing themselves* in ways that they are often unaware of. How can you tell if your choice originates from your genuine self or whether it is the result of an internal constraint? There is no simple answer. You have to think critically about your situation in order to understand it fully, but here are some questions to guide your reflective inquiry:

- Do you feel that you are making a *free, unconstrained choice* and that you could easily “*do otherwise*” if you wanted to? Or do you feel that your choice is in some sense *beyond* your conscious control, that you are “*in the grip of*” a force that does not reflect your genuine self, a compulsion that has in some way “*taken possession*” of you?
- Does your choice *add positive qualities* to your life: richness of experience, success, happiness? Or does your choice have *negative results* which undermine many of the positive goals that you are striving for?
- If you are asked “*why*” you are making a certain choice, are you able to provide a persuasive, rational explanation? Or are you at a loss to explain why you are behaving this way, other than to say, “*I can't help myself.*”

In order to remove constraints, you first have to *become aware* that they exist. For example, if someone is manipulating you to think or feel a certain way, you can't begin to deal with the manipulation until you *first become aware* of it. Similarly, you can't solve a personal problem like insecurity or emotional immaturity without first acknowledging that it is a problem and then developing insight into the internal forces that are driving your behavior. Once you



have achieved this deeper level of understanding, you are then in a position to *choose* a different path for yourself, using appropriate decision-making and problem-solving approaches such as those that we have been developing and addressing throughout this book.

**Strategy:** *Identify the **external** limitations (people or circumstances) on your freedom and think about ways to remove these constraints. Then identify—as best you can—the **internal** compulsions that are influencing you to act in ways at variance with your genuine desires. Use the critical and creative thinking abilities you have been developing to diminish or eliminate their influence.*

Maximizing your freedom involves *creating new options to choose from* instead of passively accepting the choices that are initially presented to you. The most vigorous exercise of freedom involves *actively creating alternatives* which may not be on the original menu of options. This talent involves both thinking critically—by taking active initiatives—and thinking creatively—by generating unique possibilities. For example, if you are presented with a project at work, you should not restrict yourself to considering the conventional alternatives for meeting the goals, but should instead actively seek improved possibilities. If you are enmeshed in a problem situation with someone else, you should not permit the person to establish the alternatives from which to choose, but you should instead work to formulate new or modified ways of solving the problem. Too often people are content to sit back and let the situation define their choices instead of taking the initiative to shape the situation in their own way. Critical and creative thinkers view the world as a malleable environment which they have a responsibility to form and shape. This perspective liberates them to exercise their freedom of choice to the fullest extent possible.

Active thinking, like passive thinking, is habit forming. But once you develop the habit of looking beyond the information given—to transcend consistently the framework within which you are operating—you will be increasingly unwilling to be limited by the alternatives determined by others. Instead, you will seek to create new possibilities and actively shape situations to fit your needs.

**Strategy:** *When you find yourself in situations with different choices, make a conscious effort to identify alternatives which are different from those explicitly presented. You don't necessarily have to choose the new options you have created if they are not superior to the others, but you **do** want to start developing the habit of using your imagination to look beyond the circumstances as presented.*

## Choosing the “Good Life”

What is the ultimate purpose of your life? What is the “Good Life” that you are trying to achieve?

The psychologist Carl Rogers, who has given a great deal of thought to these issues, has concluded that the Good Life is

- *not* a fixed state like virtue, contentment, nirvana, or happiness
- *not* a condition like being adjusted, fulfilled, or actualized
- *not* a psychological state like drive or tension reduction

Instead, the Good Life is a *process* rather than a state of being, a *direction* rather than a destination. But what direction? According to Rogers, “*The direction which constitutes the Good Life is that which is selected by the total organism when there is psychological freedom to move in any direction.*” In other words, the heart of the Good Life is creating yourself through genuinely free choices, once you have liberated yourself from external and internal constraints. When you are living such a life, you are able to fulfill your true potential in every area of your existence. You are able to be completely open to your experience, becoming better able to listen to yourself, to experience what is going on within yourself. You are more aware and accepting of feelings like fear, discouragement, and pain, but also more open to feelings of courage, tenderness, and awe. You are more able to live your experiences fully instead of shutting them out through defensiveness and denial.

How do you know what choices you should make, what choices will best create the self you want to be and help you achieve your Good Life? As you achieve psychological freedom, your *intuitions* become increasingly trustworthy since they reflect your deepest values, your genuine desires, your authentic self. It is when we are hobbled by constraints on ourselves that our intuitions are distorted and often self-destructive. As previously noted, you need to think clearly about yourself, to have an optimistic, self-explanatory style that enables you to approach life in the most productive way possible. When you have achieved this clarity of vision and harmony of spirit, what “feels right”—the testimony of your reflective consciousness and common sense—will serve as a competent and trustworthy guide to the choices you ought to make. The choices that emerge from this enlightened state will help you create a life that is enriching, exciting, challenging, stimulating, meaningful, and fulfilling. It will enable you to stretch and grow, to become more and to attain more of your potentialities. As the author Albert Camus noted, *Freedom is nothing else but a chance to be better, whereas enslavement is a certainty of the worst.*

The Good Life is different for each person, and there is no single path or formula for achieving it. It is the daily process of creating yourself in ways that express your deepest desires and highest values—your authentic self. *Thinking critically* and *creatively* provides you with the insight to clearly see the person you want to become, while choosing freely gives you the power actually to create the person you have envisioned.

**Strategy:** Describe your ideal “Good Life.” Make full use of your imagination and be specific regarding the details of the life you are envisioning for yourself. Compare this imagined Good Life with the life you have now. What different choices do you have to make in order to achieve your Good Life?

## *The Meaning of Your Life*

According to the psychiatrist and concentration camp survivor Victor Frankl, “Man’s search for meaning is the primary motivation in his life.” A well-known Viennese psychiatrist in the 1930s, Dr. Frankl and his family were arrested by the Nazis, and he spent three years in the Auschwitz concentration camp. Every member of his family, including his parents, siblings, and pregnant wife, were killed. He himself miraculously survived, enduring the most unimaginably abusive and degrading conditions. Following his liberation by the Allied troops, he wrote *Man’s Search for Meaning*, an enduring and influential work, which he began on scraps of paper during his internment. Since its publication in 1945, it has become an extraordinary bestseller, read by millions of people and translated into 20 languages. Its success reflects the profound hunger for meaning that people have continually been experiencing, trying to answer a question that, in the author’s words, “burns under their fingernails.” This hunger expresses the pervasive *meaninglessness* of our age, the “existential vacuum” in which many people exist.

Dr. Frankl discovered that even under the most inhumane conditions, it is possible to live a life of purpose and meaning. But for the majority of prisoners of Auschwitz, a meaningful life did not seem possible. Immersed in a world which no longer recognized the value of human life and human dignity, which robbed them of their will and made them objects to be exterminated, most people suffered a loss of their values. If a prisoner did not struggle against this spiritual destruction with a determined effort to save his or her self-respect, the person lost the feeling of being an individual, a being with a mind, with inner freedom and personal value. The prisoner’s existence descended to the level of animal life, plunging him or her into a depression so deep that he or she became incapable of action. No entreaties, no blows, no threats would have any effect

on the person's apathetic paralysis, and he or she soon died, underscoring the Russian novelist Fyodor Dostoyevsky's observation, "Without a firm idea of himself and the purpose of life, man cannot live, and would sooner destroy himself than remain on earth, even if he was surrounded with bread."

Dr. Frankl found that the meaning of *his* life in this situation was to try to help his fellow prisoners restore their psychological health. He had to find ways for them to look forward to the future: a loved one waiting for the person's return, a talent to be used, or perhaps work yet to be completed. These were the threads he tried to weave back into the patterns of meaning in these devastated lives. His efforts led him to the following insight:

We had to learn ourselves, and furthermore we had to teach the despairing men, that it did not matter what we expected from life, but rather *what life expected from us*. We needed to stop asking about the meaning of life but instead to think of ourselves as those who were being questioned by life, daily and hourly. Our answer must consist not in talk and meditation, but in right action and in right conduct. Life ultimately means taking the responsibility to find the right answer to its problems and to fulfill the tasks which it constantly sets for each individual.

We each long for a life of significance, to feel that in some important way our life has made a unique contribution to the world and to the lives of others. We each strive to create our self as a person of unique quality, someone who is admired by others as extraordinary. We hope for lives characterized by unique accomplishments and lasting relationships that will distinguish us as memorable individuals both during and after our time on earth.

The purpose of this book has been to help provide you with the thinking abilities you will need to guide you on your personal journey of self-discovery and self-transformation. Its intention has *not* been to provide you with answers, but rather to equip you with the thinking abilities, conceptual tools, and personal insights to find your own answers. Each chapter has addressed an essential dimension of the thinking process, and the issues they have raised form a comprehensive blueprint for your life, a life that you wish to be clear in purpose and rich in meaning.

In order for you to discover the meaning of *your* life, you need to seek meaning actively, to commit yourself to meaningful projects, to meet the challenges that life throws at you with courage and dignity. You will have little chance of achieving meaning in your life if you simply *wait* for meaning to present itself to you, or if you persist in viewing yourself as a *victim* of life. If you squander your personal resources by remaining trapped in unproductive



patterns, then there will be no room left in your life for genuine meaning. Reversing this negative orientation requires a radical shift of perspective from complaining about what life “owes” you to accepting the responsibility of meeting life’s expectations, whether they be rewarding or cruel. Even in the dire conditions of the concentration camp, there were men like Victor Frankl who chose to act heroically, devoting themselves to comforting others or giving away their last piece of bread. They were living testament to the truth that even though life may take everything away from a person, it cannot take away “the last of the human freedoms—to choose one’s attitude in any given set of circumstances, to choose one’s own way.”

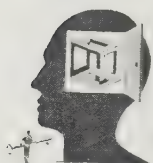
Though you may have to endure hardship and personal tragedy, you still have the opportunity to invest your life with meaning by the way that you choose to respond to your suffering: whether you let it defeat you or whether you are able to rise above it triumphantly. Your ultimate and irreducible freedom to freely *choose* your responses to life’s situations defines you as a person and determines the meaningfulness of your existence.

But how do you determine the “right” way to respond, select the path that will infuse your life with meaning and fulfillment? You need to *think critically*, *think creatively*, and *make enlightened choices*—all of the thinking abilities and life attitudes that you have been cultivating throughout your work with this book. They will provide you with the clear vision and strength of character that will enable you to create yourself as a worthy individual living a life of purpose and meaning. Your explorations of issues presented throughout this book have given you the opportunity to become acquainted with yourself and with the potential that resides within you: your unique intellectual gifts, imaginative dreams, and creative talents. As the psychologist Abraham Maslow notes, you are so constructed that you naturally press toward fuller and fuller being, realizing your potentialities, becoming fully human, everything that you *can* become. But you alone can determine what choices you will make among all of the possibilities: which will be condemned to nonbeing and which will be actualized, creating your immortal portrait, the monument to your existence.

Clearly, the ultimate meaning of your life can never be fully realized within the confines of your own self. Meaning is encountered and created through your efforts to *go beyond* yourself. In the same way that “happiness” and “success” are the outgrowths of purposeful and productive living rather than ends in themselves, so your life’s meaning is a natural by-product of reaching beyond yourself to touch the lives of others. This self-transcendence may take the form of a creative work or a heroic action that you display to the human community. It may also be expressed through your loving and intimate relationships with other people, your contribution to individual members of your human community.

What is the meaning of your life? It is the truth that you will discover as you strive, through your daily choices, to create yourself as an authentic individual, committed to enhancing the lives of others, fulfilling your own unique potential, and attuning yourself to your spiritual nature and the mysteries of the universe. It is the reality you will find as you choose to respond to both the blessings and the suffering in your life with courage and dignity. Joy and suffering, fulfillment and despair, birth and death—these are the raw materials that life provides you. Your challenge and responsibility is to shape these experiences into a meaningful whole. Guided by a Philosophy of Life which you have constructed with your abilities to think critically, think creatively, and choose freely. This is the path you must take in order to live a life that is rich with meaning, lived by a person who is noble and heroic—a life led as an enlightened thinker.

### THINKING PASSAGE *EXPLORING THE CREATIVE PROCESS*



The process of creating yourself through your choices is a lifelong one that involves all the creative and critical thinking abilities that we have been exploring in this book. The processes of creative thinking and critical thinking are related to one another in complex, interactive ways. We use the creative thinking process to develop ideas that are unique, useful, and worthy of further elaboration, and we use the critical thinking process to analyze, evaluate, and refine these ideas. Creative thinking and critical thinking work as partners, enabling us to lead fulfilling lives. The following article, "Original Spin" by Lesley Dornen and Peter Edidin, provides a useful introduction to creative thinking and suggests strategies for increasing your creative abilities. After reading the article and reflecting on its ideas, answer the questions that follow.

#### ORIGINAL SPIN

by Lesley Dornen and Peter Edidin

Creativity, somebody once wrote, is the search for the elusive "Aha," that moment of insight when one sees the world, or a problem, or an idea, in a new way. Traditionally, whether the discovery results in a cubist painting

"Original Spin" by Lesley Dornen and Peter Edidin, *Psychology Today*, July / August 1989. Reprinted with permission from Psychology Today Magazine. Copyright © 1989 (Sussex Publishers, Inc.).

or an improved carburetor, we have viewed the creative instant as serendipitous and rare—the product of genius, the property of the elect.

Unfortunately, this attitude has had a number of adverse consequences. It encourages us to accept the myth that the creative energy society requires to address its own problems will never be present in sufficient supply. Beyond that, we have come to believe that “ordinary” people like ourselves can never be truly creative. As John Briggs, author of *Fire in the Crucible: The Alchemy of Creative Genius*, said, “The way we talk about creativity tends to reinforce the notion that it is some kind of arbitrary gift. It’s amazing the way ‘not having it’ becomes wedded to people’s self-image. They invariably work up a whole series of rationalizations about why they ‘aren’t creative,’ as if they were damaged goods of some kind.” Today, however, researchers are looking at creativity, not as an advantage of the human elite, but as a basic human endowment. As Ruth Richards, a psychiatrist and creativity researcher at McLean Hospital in Belmont, MA, says, “You were being creative when you learned how to walk. And if you are looking for something in the fridge, you’re being creative because you have to figure out for yourself where it is.” Creativity, in Richards’ view, is simply fundamental to getting about in the world. It is “our ability to adapt to change. It is the very essence of human survival.”

In an age of rampant social and technological change, such an adaptive capability becomes yet more crucial to the individual’s effort to maintain balance in a constantly shifting environment. “People need to recognize that what Alvin Toffler called future shock is our daily reality,” says Ellen McGrath, a clinical psychologist who teaches creativity courses at New York University. “Instability is an intrinsic part of our lives, and to deal with it every one of us will need to find new, creative solutions to the challenges of everyday life. I think creativity will be the survival skill of the ‘90s.”

But can you really become more creative? If the word *creative* smacks too much of Picasso at his canvas, then rephrase the question in a less intimidating way: Do you believe you could deal with the challenges of life in a more effective, inventive and fulfilling manner? If the answer is yes, then the question becomes, “What’s stopping you?”

### **Defining Yourself as a Creative Person**

People often hesitate to recognize the breakthroughs in their own lives as creative. But who has not felt the elation and surprise that come with the sudden, seemingly inexplicable discovery of a solution to a stubborn problem? In that instant, in “going beyond the information given,” as

psychologist Jerome Bruner has said, to a solution that was the product of your own mind, you were expressing your creativity.

This impulse to “go beyond” to a new idea is not the preserve of genius, stresses David Henry Feldman, a developmental psychologist at Tufts University and the author of *Nature’s Gambit*, a study of child prodigies. “Not everybody can be Beethoven,” he says, “but it is true that all humans, by virtue of being dreamers and fantasizers, have a tendency to take liberties with the world as it exists. Humans are always transforming their inner and outer worlds. It’s what I call the ‘transformational imperative.’”

The desire to play with reality, however, is highly responsive to social control, and many of us are taught early on to repress the impulse. As Mark Runco, associate professor of psychology at California State University at Fullerton and the founder of the new *Creativity Research Journal*, says, “We put children in groups and make them sit in desks and raise their hands before they talk. We put all the emphasis on conformity and order, then we wonder why they aren’t being spontaneous and creative.”

Adults too are expected to conform in any number of ways and in a variety of settings. Conformity, after all, creates a sense of order and offers the reassurance of the familiar. But to free one’s natural creative impulses, it is necessary, to some extent, to resist the pressure to march in step with the world. Begin small, suggests Richards. “Virtually nothing you do can’t be done in a slightly different, slightly better way. This has nothing to do with so-called creative pursuits but simply with breaking with your own mindsets and trying an original way of doing some habitual task. Simply defer judgment on yourself for a little while and try something new. Remember, the essence of life is not getting things right, but taking risks, making mistakes, getting things *wrong*.”

But it also must be recognized that the creative life is to some degree, and on some occasions, a solitary one. Psycholinguist Vera John-Steiner, author of *Notebooks of the Mind: Explorations of Thinking*, is one of many creativity researchers who believe that a prerequisite for creative success is “intensity of preoccupation, being pulled into your activity to such an extent that you forget it’s dinnertime.” Such concentration, John-Steiner believes, is part of our “natural creative bent,” but we learn to ignore it because of a fear that it will isolate us from others. To John-Steiner, however, this fear is misplaced. Creative thought, she has written, is a “search for meaning,” a way to connect our inner sense of being with some aspect of the world that preoccupies us. And she believes that only by linking these two aspects of reality—the inner and the outer—can we gain “some sense of being in control of life.”



### Avoiding the Myths

David Perkins, co-director of Project Zero at the Harvard Graduate School of Education, asks in *The Mind's Best Work*, "When you have it—creativity, that is—what do you have?" The very impalpability of the subject means that often creativity can be known only by its products. Indeed, the most common way the researchers define creativity is by saying it is whatever produces something that is: a. original; b. adaptive (i.e., useful); c. meaningful to others. But because we don't understand its genesis, we're often blocked or intimidated by the myths that surround and distort this mercurial subject.

One of these myths is, in Perkins's words, that creativity is "a kind of 'stuff' that the creative person has and uses to do creative things, never mind other factors." This bit of folk wisdom, that creativity is a sort of intangible psychic organ—happily present in some and absent in others—so annoys Perkins that he would like to abolish the word itself.

Another prevalent myth about creativity is that it is restricted to those who are "geniuses"—that is, people with inordinately high IQs. Ironically, this has been discredited by a study begun by Stanford psychologist Lewis Terman, the man who adapted the original French IQ test for America. In the early 1920s, Terman had California schoolteachers choose 1,528 "genius" schoolchildren (those with an IQ above 135), whose lives were then tracked year after year. After six decades, researchers found that the putative geniuses, by and large, did well in life. They entered the professions in large numbers and led stable, prosperous lives. But very few made notable creative contributions to society, and none did extraordinary creative work.

According to Dean Simonton, professor of psychology at the University of California at Davis and the author of *Genius, Creativity and Leadership* and *Scientific Genius*, "There just isn't any correlation between creativity and IQ. The average college graduate has an IQ of about 120, and this is high enough to write novels, do scientific research, or any other kind of creative work."

A third myth, voiced eons ago by Socrates, lifts creativity out of our own lives altogether into a mystical realm that makes it all but unapproachable. In this view, the creative individual is a kind of oracle, the passive conduit or channel chosen by God, or the tribal ancestors, or the muse, to communicate sacred knowledge.

Although there are extraordinary examples of creativity, for which the only explanation seems to be supernatural intervention (Mozart, the story goes, wrote the overture to *Don Giovanni* in only a few hours, after a

virtually sleepless night and without revision), by and large, creativity begins with a long and intensive apprenticeship.

Psychologist Howard Gruber believes that it takes at least 10 years of immersion in a given domain before an eminent creator is likely to be able to make a distinctive mark. Einstein, for example, who is popularly thought to have doodled out the theory of relativity at age 26 in his spare time, was in fact compulsively engaged in thinking about the problem at least from the age of 16.

Finally, many who despair of ever being creative do so because they tried once and failed, as though the truly creative always succeed. In fact, just the opposite is true, says Dean Simonton. He sees genius, in a sense, as inseparable from failure. "Great geniuses make tons of mistakes," he says. "They generate lots of ideas and they accept being wrong. They have a kind of internal fortress that allows them to fail and just keep going. Look at Edison. He held over 1,000 patents, but most of them are not only forgotten, they weren't worth much to begin with."

### **Mindlessness vs. Mindfulness**

"Each of us desires to share with others our vision of the world, only most of us have been taught that it's wrong to do things differently or look at things differently," says John Briggs. "We lose confidence in ourselves and begin to look at reality only in terms of the categories by which society orders it."

This is the state of routinized conformity and passive learning that Harvard professor of psychology Ellen Langer calls, appropriately enough, mindlessness. For it is the state of denying the perceptions and promptings of our own minds, our individual selves. Langer and her colleagues' extensive research over the past 15 years has shown that when we act mindlessly, we behave automatically and limit our capacity for creative response. Mired down in a numbing daily routine, we may virtually relinquish our capacity for independent thought and action.

By contrast, Langer refers to a life in which we use our affective, responsive, perceptive faculties as "mindful." When we are mindful, her research has shown, we avoid rigid, reflexive behavior in favor of a more improvisational and intuitive response to life. We notice and feel the world around us and then act in accordance with our feelings. "Many, if not all, of the qualities that make up a mindful attitude are characteristic of creative people," Langer writes in her new book, *Mindfulness*. "Those who can free themselves of mindsets, open themselves to new information and surprise, play with perspective and context, and focus on process rather

than outcome are likely to be creative, whether they are scientists, artists, or cooks."

Much of Langer's research has demonstrated the vital relationship between creativity and uncertainty, or conditionality. For instance, in one experiment, Langer and Alison Piper introduced a collection of objects to one group of people by saying, "This is a hair dryer," and "This is a dog's chew toy," and so on. Another group was told "This *could be* a hair dryer," and "This *could be* a dog's chew toy." Later, the experimenters for both groups invented a need for an eraser, but only those people who had been conditionally introduced to the objects thought to use the dog's toy in this new way.

The intuitive understanding that a single thing is, or could be, many things, depending on how you look at it, is at the heart of the attitude Langer calls mindfulness. But can such an amorphous state be cultivated? Langer believes that it can, by consciously discarding the idea that any given moment of your day is fixed in its form. "I teach people to 'compartmentize' their lives into smaller pieces," she says. "In the morning, instead of mindlessly downing your orange juice, *taste it*. Is it what you want? Try something else if it isn't. When you walk to work, turn left instead of right. You'll notice the street you're on, the buildings and the weather. Mindfulness, like creativity, is nothing more than a return to who you are. By minding your responses to the world, you will come to know yourself again. How you feel. What you want. What you want to do."

### Creating the Right Atmosphere

Understanding the genesis of creativity, going beyond the myths to understand your creative potential, and recognizing your ability to break free of old ways of thinking are the three initial steps to a more creative life. The fourth is finding ways to work that encourage personal commitment and expressiveness.

Letting employees learn what they want to do has never been a very high priority in the workplace. There, the dominant regulation has always been, "Do what you are told."

Today, however, economic realities are providing a new impetus for change. The pressure on American businesses to become more productive and innovative has made creative thinking a hot commodity in the business community. But innovation, business is now learning, is likely to be found wherever bright and eager people *think* they can find it. And some people are looking in curious places.

Financier Wayne Silby, for example, founded the Calvert Group of funds, which today manages billions of dollars in assets. Silby, whose business card at one point read Chief Daydreamer, occasionally retreats for inspiration to a sensory deprivation tank, where he floats in warm water sealed off from light and sound. "I went into the tank during a time when the government was changing money-market deposit regulations, and I needed to think how to compete with banks. Floating in the tank I got the idea of joining them instead. We wound up creating an \$800-million program. Often we already have answers to our problems, but we don't quiet ourselves enough to see the solutions bubbling just below the surface." Those solutions will stay submerged, he says, "unless you create a culture that encourages creative approaches, where it's OK to have bad ideas."

Toward this goal, many companies have turned to creativity consultants, like Synectics, Inc., in Cambridge, MA. Half the battle, according to Synectics facilitator Jeff Mauzy, is to get the clients to relax and accept that they are in a safe place where the cutthroat rules of the workplace don't apply, so they can allow themselves to exercise their creative potential in group idea sessions.

Pamela Webb Moore, director of naming services (she helps companies figure out good names for their products) at Synectics, agrees. One technique she uses to limber up the minds of tightly focused corporate managers is "sleight of head." While working on a particular problem, she'll ask clients to pretend to work on something else. In one real-life example, a Synectics-trained facilitator took a group of product-development and marketing managers from the Etonic shoe corporation on an "excursion," a conscious walk away from the problem—in this case, to come up with a new kind of tennis shoe.

The facilitator asked the Etonic people to imagine they were at their favorite vacation spot. "One guy," Moore says, "was on a tropical island, walking on the beach in his bare feet. He described how wonderful the water and sand felt on his feet, and he said, 'I wish we could play tennis barefoot.' The whole thing would have stopped right there if somebody had complained that while his colleague was wandering around barefoot, they were supposed to come up with a *shoe*. Instead, one of the marketing people there was intrigued, and the whole group decided to go off to play tennis barefoot on a rented court at 10 at night."

While the Etonic people played tennis, the facilitator listed everything they said about how it felt. The next morning, the group looked at her assembled list of comments, and they realized that what they liked



about playing barefoot was the lightness of being without shoes, and the ability to pivot easily on both the ball of the foot and the heel. Nine months later, the company produced an extremely light shoe called the Catalyst, which featured an innovative two-piece sole that made it easier for players to pivot.

### The Payoff

In *The Courage to Create*, Rollo May wrote that for much of this century, researchers had avoided the subject of creativity because they perceived it as “unscientific, mysterious, disturbing and too corruptive of the scientific training of graduate students.” But today researchers are coming to see that creativity, at once fugitive and ubiquitous, is the mark of human nature itself.

Whether in business or the arts, politics or personal relationships, creativity involves “going beyond the information given” to create or reveal something new in the world. And almost invariably, when the mind exercises its creative muscle, it also generates a sense of pleasure. The feeling may be powerfully mystical, as it is for New York artist Rhonda Zwillinger, whose embellished artwork appeared in the film *Slaves of New York*. Zwillinger reports, “There are times when I’m working and it is almost as though I’m a vessel and there is a force operating through me. It is the closest I come to having a religious experience.” The creative experience may also be quiet and full of wonder, as it was for Isaac Newton, who compared his lifetime of creative effort to “a boy playing on the seashore and diverting himself and then finding a smoother pebble or prettier shell than ordinary, while the greater ocean of truth lay all undiscovered before me.”

But whatever the specific sensation, creativity always carries with it a powerful sense of the mind working at the peak of its ability. Creativity truly is, as David Perkins calls it, the mind’s best work, its finest effort. We may never know exactly how the brain does it, but we can feel that it is exactly what the brain was meant to do.

Aha! ■

## Questions for Analysis

1. According to the authors, “Creativity . . . is the search for the elusive ‘Aha,’ that moment of insight when one sees the world, or a problem, or an idea, in a new way.” Describe an “aha” moment that you have had recently, detailing the origin of your innovative idea and how you implemented it.

2. Identify some of the influences in your life that have inhibited your creative development, including the “myths” about creativity that are described in the article.
3. Using the ideas contained in this chapter and in this article, identify some of the strategies that you intend to use in order to become more creative in your life: for example, becoming more “mindful,” destroying the “voice of judgment,” and creating a more conducive atmosphere.

# Critical Thinking

## Creativity Exercise

This is an exercise in thinking creatively. As we know by now, every person has creative ability; it just depends on what areas of our lives we choose to express that creativity.

Let's combine that creativity with artistic expression, yours or another artist's.

Please bring to class a song, poem, or piece of music that you feel has special significance for you. It can be an original work, or work by another artist. It does not have to be in English.

Every student will read the piece of writing, or play the piece of music, and then explain to us why it is special for her or him.

The purpose of this exercise is to catch a glimpse of who you are and how you see yourself; it is also a very interesting exercising in perception-checking, i.e. how you perceive(d) one another.

**This assignment is worth 25 points.**





## Creative Thinking and Brainstorming

- An essential aspect of critical thinking is thinking constructively—solving problems, and thinking creatively.
- Thinking creatively is the ability to come up with new ideas and fresh approaches toward solving problems, ideas that are innovative as well as practical and useful.
- In a 1990 study, the American Society for Training and Development identified creative thinking and adaptability as one of seven basic skills necessary for career success.
- Creative potential exists to some extent in everyone if it is developed. There are many ways to generate ideas; one way is called brainstorming. Brainstorming can be defined as a group problem-solving technique that involves the spontaneous contribution of ideas from all members of the group.

### Brainstorming

People are often afraid of making mistakes and being criticized. As a result, people are often afraid to offer ideas or suggestions for fear that they will be laughed at or criticized. Brainstorming is a process designed to reduce the fear of making mistakes.

How does brainstorming work? In order to be effective, there are some guidelines which **MUST** be followed.

1. Someone needs to be designated to record all the ideas generated by the group.
2. It is crucial that all members participate. Collect as many ideas as possible. All ideas should be welcome no matter how bizarre or far-fetched they seem. The more ideas the better. Brainstorming operates on the principle: "The best way to get good ideas is to have lots of ideas."
3. During the brainstorming stage, no idea should be criticized no matter how strange it may seem. Don't laugh at, groan or frown at any ideas no matter how bizarre they sound. Doing so will only discourage others from contributing. Evaluation of the ideas comes later.
4. Be creative and offer the wildest ideas you can. The more ideas the better because at this point you don't know what might work. No idea is too ridiculous, because it

might spark someone else to come up with what might ultimately be the overall best idea.

5. After a certain period of time (which will depend on the nature of the problem you are trying to solve), stop the idea creation and start to evaluate your list of ideas. Your group should establish some criteria for selecting the “best” ideas, then critically evaluate each idea against those criteria.

**Use the above guidelines for both of your group projects.**

## Group Creative Thinking Assignment

1. Each group will be given an object. Your goal as a group is to try to think of as many *completely new uses* as you can for your object. This assignment will be done entirely in this class period.
2. Designate someone as the recorder. This person will write down all the ideas that have been generated. Follow the brainstorming guidelines provided on the “Creative Thinking and Brainstorming” handout.
3. After about fifteen minutes, stop the idea creation. Take your list and critically evaluate each idea as to how well your object would perform in its new use. Your criteria should include: (1) creativity and (2) practicality. After you have evaluated all ideas, decide on your “Best Idea” for your object. At the end of the assignment, each group will turn in its list of all the ideas generated, so don’t throw it away. Also, be sure to write down your best idea on this list.
4. This assignment is worth 15% of your final grade. Your individual grade will be based both on my evaluation and peer evaluation from your fellow group members. My evaluation will be based on (1) the total number of ideas generated and (2) your “best idea” as decided by your group. The peer evaluation will be based on the “Peer Evaluation Form—Creative Thinking Assignment” handout. (Avoid grade inflation! Be truthful in your evaluations.) Groups can also win extra points by winning the “Best Group Idea Award” as voted by the other groups.





## Communicating in Small Groups

Many of the important communication interactions of your life are conducted in small groups. In school you may be assigned to a team to work on a particular problem relevant to the class. At work you may be assigned to a committee involved in planning a project for the company. In your community there may be problems that can only be solved by people working together.

To understand how group communication functions, we need to consider the nature of a group. Is any gathering of people a group? Not necessarily. For example, a gathering of people waiting for a bus would not be considered a group. To be considered a **group**, a gathering of people must interact with one another over a period of time to reach a goal or goals. Let's suppose that the same people have been meeting at the bus stop every workday for several months. They may chat with one another while waiting for the bus, but this casual interaction is not enough to turn them into a group. Now, suppose that the Metropolitan Transit Organization (MTO) announces in the morning paper that it wants to raise fares from \$1.00 to \$1.50 each way for the trip from the bus stop to downtown. That morning when the people get together, they begin to discuss with considerable outrage the problem of the increase in fares. One of the people at the bus stop suggests that they all get together at her apartment that evening to come up with a plan to try to get the MTO to reconsider its proposal. When these people get together that evening, they will be interacting as a group. In this appendix we discuss how groups function and how your public communication skills can make you a better participant or leader in groups.

The small-group setting offers both ESL and non-ESL students the chance to practice communication skills under reduced stress. Small-group interaction also helps class members get to know one another. For these reasons, a small-group assignment near the beginning of a term offers special advantages.

## Group Problem Solving

When we listen to someone present information or make recommendations, we hear only one version of a problem. That version may be biased, based on self-interest, or it may simply be wrong. When important issues are involved, we need to minimize the risk of such errors. One way to do this is to have a group consider the situation and make recommendations about the problem.

Group problem solving has many advantages over individual efforts. When people from different cultures share their various ways of seeing a problem, they enrich our understanding. We begin to see the world through the eyes of others. This may help us see misconceptions and biases in our own thinking. Listening to others' points of view also can stimulate creative thinking about problems.

In well-managed problem-solving groups, people on all sides of an issue have a chance to discuss the similarities and differences of their perspectives.

ESL: ESL students can often bring new perspectives to the discussion of traditional problems. Encourage these students to contribute to problem-solving discussions.

To reduce the possibility of cultural gridlock in mixed ESL and non-ESL groups, encourage leaders to have each participant reflect at the outset upon his or her personal experience with the problem under discussion.

Through discussion, they may discover some areas of agreement that can help resolve differences. Additionally, small groups of people typically are willing to examine their differences and feel free to explore options for action. Because of these advantages, organizations often use groups to work on important organizational problems. In fact, it is estimated that approximately 20 million meetings take place each day in the United States.<sup>1</sup>

Although working in groups has many advantages, some problems may arise that can make groups less effective. **Cultural gridlock**, the inability to communicate because of profound cultural differences, may occur in groups whose participants come from different backgrounds. For example, people in marketing departments and research-and-development scientists in an organization may bring different expectations to a meeting. Along with these differing expectations, participants from different social backgrounds may bring different perspectives on a problem, agendas, priorities, procedures, ways of communicating, and standards of protocol to meetings. These differences may sidetrack constructive discussions.

Dealing with cultural gridlock is never easy, but the following guidelines will help minimize its impact:

- Allow time for people to get acquainted before starting to work.
- Provide enough room so that people don't feel crowded.
- Distribute an agenda so that people know what to expect.
- Watch for language problems. Summarize discussions. Post key points.
- Avoid using jargon that some participants may not understand.
- Be sensitive to cultural differences in protocol and nonverbal communication.<sup>2</sup>

To heighten sensitivity to the dangers of groupthink, focus on this problem in the evaluation of small-group communication. What techniques do groups employ to minimize groupthink?

Another problem groups may encounter is **groupthink**, the development of an uncritical acceptance of group decisions.<sup>3</sup> Groupthink is most likely to occur when groups value interpersonal relationships more than the ability to perform effectively. Other factors that contribute to groupthink include a leader's strong preference for a given decision or the lack of a clear set of procedures for approaching problems. Groupthink is dangerous because outsiders may assume that a group has deliberated carefully and responsibly when it has not.

The problems in decision making that accompany groupthink include (1) incomplete consideration of objectives, (2) poor information retrieval and analysis, and (3) an incomplete consideration of alternative solutions. Dealing with groupthink is difficult, but there are some steps that can guard against it. First, groups need to be aware that groupthink can be a problem. This awareness should include a knowledge of the major symptoms of groupthink:

- Putting pressure on people who argue against what most of the group believe
- Censoring thoughts that differ from group beliefs
- Maintaining an illusion of invulnerability
- Reinforcing an unquestioned belief in the group's moral rightness
- Attempting to rationalize group decisions

Once a group is aware that groupthink is a problem, the leader can take action to minimize its effects. The leader should encourage the group to set standards for investigation and appraisal that discourage uncritical thinking and premature consensus.<sup>4</sup> This suggests that group members must have a systematic way to approach the problem. The following leadership behaviors help reduce groupthink problems:

- Reminding participants to critically evaluate the group's recommendations
- Reserving their own opinions until others have expressed their views
- Assigning the role of the devil's advocate to someone who must ask critical questions about ideas
- Bringing in outsiders to discuss the issues under consideration
- Encouraging creative conflict, wherein the group attacks proposed procedures

## Group Problem-Solving Techniques

Group deliberations that are orderly, systematic, and thorough help people reach high-quality decisions. Problem-solving groups can use a variety of methods to achieve their goals.<sup>5</sup>

### ■ Reflective Thinking and Problem Solving

The approach recommended for most problem-solving groups is a modification of the reflective thinking technique first proposed by John Dewey in 1910. This systematic approach has five steps: (1) defining the problem, (2) generating possible solutions, (3) evaluating solution options, (4) developing a plan of action, and (5) evaluating the results.

**Step 1: Defining the Problem.** Sometimes the problem assigned to a group is only a symptom of the actual problem. All problem-solving groups should take time to define the problem carefully before looking for a solution. The following guidelines can help define the problem:

- Describe the problem as specifically as possible.
- Explore the causes of the problem.
- Consider the history of the problem.
- Determine who is affected by the problem.
- Obtain enough information to understand the problem.

**Step 2: Generating Possible Solutions.** Once the problem has been defined, members can work on generating solutions. **Brainstorming** encourages all group members to contribute by producing a large number of possible solutions.<sup>6</sup> It works best with twelve or fewer group members.<sup>7</sup> During brainstorming, members should not attempt to evaluate the solutions or decide what option to follow.<sup>8</sup>

The following rules should govern brainstorming sessions:

- Present all your ideas, no matter how outrageous they may seem. Keep things playful to encourage creativity. Even an outlandish idea may provide the basis for a workable solution. The more ideas generated, the better.
- Suspend judgment. Allow no one to criticize any suggestion.
- Combine ideas for additional options.

ESL: ESL students may require encouragement to participate actively in group discussions. Give these students special assignments to stimulate their participation. Asking ESL students to report research findings to their groups is one way to encourage them.

Make brainstorming fun by asking students to seek outlandish proposals relating to a problem. These may have limited value in themselves, but can be useful in stimulating creative and critical thinking.



To teach students the value of brainstorming, ask them to compare the effectiveness of problem-solution discussions in which the technique is and is not used.

- Don't let seniority or organizational status impede the process. Encourage everyone to participate.

Brainstorming usually involves a six-step process:

1. The leader asks each member in turn to contribute an idea. If a member does not have an idea, he or she should pass. Stress quantity over quality.
2. A recorder writes down all ideas on a flip chart or marker board so everyone can see them.
3. Brainstorming continues until all members have passed.
4. The suggestions are reviewed for clarification, adding new options, or combining options.
5. The group identifies the most useful ideas.
6. The leader designates someone to receive additional ideas after the meeting. These ideas may be added to the list for consideration during the next phase of the problem-solving process.

There are many variations of brainstorming. When time is short or member status differences may stifle ideas, one alternative may be **electronic brainstorming**, in which participants generate ideas in computer chat groups or via email before meeting face to face.<sup>9</sup> If participants have problems expressing themselves verbally, the leader might try having participants draw pictures that illustrate their ideas.<sup>10</sup>

**Step 3: Evaluating Solution Options.** Ideally, a group should take a break between generating solutions and evaluating them. During that time, members can gather information on the feasibility of each option and determine if it has been used elsewhere. When the group reconvenes, it should discuss options using the following guidelines:

- Costs of the option
- Probability of success
- Difficulty of enactment
- Time constraints
- Additional benefits to be expected
- Additional problems that might be encountered

Groups should summarize the considerations for each option on a flip chart, then post the summaries so that members can refer to them as they compare options. As options are evaluated, some of them will seem weak and be dropped; others may be strengthened and refined.

The group also may combine options to generate new alternatives. For example, if the group is caught between option A, which promises improved efficiency, and option B, which promises lower cost, it may be possible to combine the best features of each into option C. This approach is similar to the SIL (Successive Integration of Problem Elements) method, developed at the Battelle Memorial Institute, a nonprofit research and development think tank. The SIL method is useful for groups of six or fewer participants. The process includes the following steps:

1. Members independently generate solution options.
2. Two of the members successively read one of their ideas to the group.



3. The group discusses ways to combine the two ideas into one solution.
4. A third member reads an idea that the group attempts to integrate with solution from step 3.
5. The “add an idea” process continues until all of the participants’ ideas have been read aloud and the group has tried to integrate them.
6. The process is complete when the group reaches a consensus on a solution.<sup>11</sup>

After each alternative has been considered, members rank the solutions in terms of their acceptability. The option receiving the highest overall rank is the proposed solution.

It is not unusual for participants to become personally caught up with their own solutions. During evaluation, a leader must keep the group focused on ideas and not on participants. Accept differences of opinion and conflict as a natural and necessary part of problem solving. Discussing the strengths of an option before talking about its weaknesses can take some of the heat out of the process.

**Step 4: Developing a Plan of Action.** Once the group has selected a solution, it must determine how it can be implemented. For example, to improve company morale, a group might recommend a three-step plan: (1) better in-house training programs to increase opportunities for promotion, (2) a pay structure that rewards success in training programs, and (3) increased employee participation in decision making. As the group refines this plan, it should consider what might help or hinder it, the resources needed to enact it, and a timetable for completion.

If the group cannot develop a plan of action for the solution, or if insurmountable obstacles appear, the group should return to step 3 and consider other options.

**Step 5: Evaluating Results.** Not only must a problem-solving group plan how to implement a solution, it must also determine how to evaluate results once the plan is enacted. The group should establish evaluation criteria for what constitutes success, when results can be expected, and contingency plans to use if the original plan doesn’t work. To monitor the ongoing success of a solution, such as the three-part plan to improve morale, the group would have to determine reasonable expectations for each stage in the process. That way, the company could detect and correct problems as they occur, before they damage the plan as a whole. Having a scheduled sequence of expectations also provides a way to determine results while the plan is being enacted, rather than having to wait for the entire project to be completed.

## ■ Other Approaches to Group Problem Solving

Although the systematic process described above works well in many situations, there are times when a different approach may be needed. When a group consists of people from different public or private sectors, **collaborative problem solving** may work best.<sup>12</sup> For example, in many urban areas, coalitions of business executives and educators have worked together on plans to train people for jobs in the community. In such situations the problems are usually important and the resources are usually limited. Because there is no established authority structure and because the factions may have different expectations or goals, these coalitions often have problems working together. To be effective, such groups need to spend considerable time defining the problem and exploring each other’s perspectives. This should help them recognize their

interdependence and begin to really work together. In such groups, the participants must come to see themselves not as members of group A (the executives) or group B (the educators), but as members of group C, the coalition. Leadership is especially difficult in such groups.

One approach that is useful in such situations is **dialogue groups**. According to William Isaacs, director of the Dialogue Project at the Massachusetts Institute of Technology Center for Organizational Learning, "Dialogue is a discipline of collective thinking and inquiry, a process for transforming the quality of conversation, and, in particular, the thinking that lies beneath it."<sup>13</sup> Such groups focus on understanding the different interpretations of the problem that participants bring to the interaction. Their purpose is to establish a conversation between participants from which common ground and mutual trust can emerge.

The role of the facilitator is critical in dialogue groups. According to Edgar Schein of the MIT Center, the facilitator must

1. Seat the group in a circle to create a sense of equality.
2. Introduce the problem.
3. Ask people to share an experience in which dialogue led to "good communication."
4. Ask members to consider what led to good communication.
5. Ask participants to talk about their reactions.
6. Let the conversation flow naturally.
7. Intervene only to clarify problems of communication.
8. Conclude by asking all members to comment however they choose.<sup>14</sup>

The dialogue method is not a substitute for other problem-solving techniques, such as the reflective thinking process presented earlier. Instead, the dialogue method may be used as a precursor because deliberation usually works well only when members understand each other well enough to be "talking the same language." A similar approach may be found in the Kettering Foundation's National Issues Forums.<sup>15</sup>

A similar approach is followed in value-added brainstorming which follows a five-step process.<sup>16</sup> The first step involves listing all ideas about what is causing the problem you are working on. The second step sets out objectives in terms of what you want to accomplish in solving the problem and ties the objectives to the previously listed causes. The third step begins by listing possible sources of models for solutions followed by ideas based on these models. After completing step 3, the leader walks the group through the lists previously generated and asks the members to consider if the ideas generated actually address the problem and if they are feasible to consider further. The fourth step generates ways to turn the feasible ideas into practical plans that can be implemented. The fifth and final step delineates plans for communicating the solution to those who must make it work.

---

## Participating in Small Groups

---

To be an effective group member you must understand your responsibilities as a group participant. First, you should come to meetings prepared to contribute. You should have read background materials and performed any tasks assigned to you by the group leader. Second, you should be willing to learn from others.

You should try to contribute to the process rather than dominating the discussion. Don't be afraid to admit you are wrong and don't become defensive when challenged. Willingness to change your views is not a sign of weakness, nor is obstinacy a strength. Third, listen constructively. Don't interrupt others. Object if you feel consensus is forming too quickly. You might save the meeting from groupthink.

Analyzing your group communication skills can help you become a more effective group communicator. Use the self-analysis form in Figure A.1 to steer yourself toward more constructive group communication behaviors.



Balance the emphasis on leadership by stressing the importance of good "followership" as well. Ask students to complete the self-evaluation form, "What Kind of Follower Are You?," provided in the IRM.

**FIGURE A.1**  
**Group Communication**  
**Skills Self-Analysis Form**

	Need to Do Less	Doing Fine	Need to Do More
1. I make my points concisely.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. I speak with confidence.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. I provide specific examples and details.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. I try to integrate ideas that are expressed.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. I let others know when I do not understand them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. I let others know when I agree with them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. I let others know tactfully when I disagree with them.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. I express my opinions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. I suggest solutions to problems.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. I listen to understand.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11. I try to understand before agreeing or disagreeing.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12. I ask questions to get more information.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
13. I ask others for their opinions.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. I check for group agreement.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. I try to minimize tension.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. I accept help from others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. I offer help to others.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18. I let others have their say.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19. I stand up for myself.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. I urge others to speak up.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



As you participate in groups, you should also keep in mind the following questions:

- What is happening now in the group?
- What should be happening in the group?
- What can I do to make this come about?

If you notice a difference between what the group is doing and what it *should be* doing to reach its goals, you have the opportunity to demonstrate leadership behavior.

## Leadership in Small Groups



Ask students to complete the self-evaluation forms, "What Kind of Leader Are You?" and the "Leadership Potential Questionnaire," both provided in the IRM. Do these forms reveal ways for them to improve?

Interest in leadership is very practical: leaders help get the job done. For over fifty years, social scientists have been studying leadership by analyzing group communication patterns. This research suggests that two basic types of leadership behaviors emerge in most groups. The first is **task leadership behavior**, which directs the activity of the group toward a specified goal. The second is **social leadership behavior**, which helps build and maintain positive relationships among group members.

Task leaders initiate goal-related communication, including both giving and seeking information, opinions, and suggestions. A task leader might say, "We need more information on just how widespread sexual harassment is on campus. Let me tell you what Dean Johnson told me last Friday." Or the task leader might ask, "Gwen, tell us what you found out from the Affirmative Action Office."

Social leaders express agreement, help the group release tension, and behave in a supportive manner. A social leader looks for chances to give compliments: "I think Gwen has made a very important point. You really helped us by finding that out." Sincere compliments help keep members from becoming defensive and help maintain a constructive communication atmosphere. In a healthy communication climate, the two kinds of leadership behavior support each other and keep the group moving toward its goal. When one person combines both styles of leadership, that person is likely to be highly effective.

Leadership has also been discussed in terms of how the leader enacts the task and maintenance functions. An **autocratic leader** makes decisions without consultation, issues orders or gives direction, and controls the members of the group through the use of rewards or punishments. A **participative leader** functions in a more democratic fashion, seeking input from group members and giving them an active role in decision making. A **free-rein leader** leaves members free to decide what to do, how to do it, and when to do it. If you were working in an organization, you would probably say you "worked *for*" an autocratic leader, "worked *with*" a participative leader, and "worked *in spite of*" a free-rein leader.

Currently, work on leadership suggests that leadership styles are either transactional or transformational. **Transactional leadership** takes place in an environment based on power relationships and relies on reward and punishment to accomplish its ends. **Transformational leadership** appeals to "people's higher levels of motivation to contribute to a cause and add to the quality of life on the planet."<sup>17</sup> It carries overtones of stewardship instead of management. Transformational leaders have the following qualities:



- They have a vision of what needs to be done.
- They are empathetic.
- They are trusted.
- They give credit to others.
- They help others develop.
- They share power.
- They are willing to experiment and learn.

In short, transformational leaders lead with both their hearts and their heads. According to John Schuster, a management consultant who specializes in transformational leadership training, “The heart is more difficult to develop. It’s easier to get smarter than to become more caring.”<sup>18</sup> Recent research suggests that transformational leadership encourages communication from subordinates because they are less intimidated by their superiors and more willing to ask for advice or help.<sup>19</sup>

To understand leadership, you need to consider the major components of **ethos**: competence, integrity, likeableness, and dynamism. An effective leader is competent. This means the leader understands the problem and knows how to steer a group through the problem-solving process. An effective leader has integrity. This means the leader is honest, concerned about the good of the group, and places group success above personal concerns. An effective leader is likeable. This means he or she is friendly and interacts easily with others. Finally, an effective leader is dynamic. Dynamism involves being enthusiastic and energetic.

Don’t be intimidated by this idealized portrait of a leader. Most of us have these qualities in varying degrees and can use them when the need for leadership arises. To be an effective leader, remember two basic goals: (1) Cultivate an open leadership style that encourages all sides to air their views, and (2) help others be effective and get the job done.

## ■ Planning Meetings

In many situations, meetings seem to be time wasters. This may be because the people who conduct them do not know when to call meetings or how to run them.<sup>20</sup> Meetings should be called when members need to

Have students recall a meeting that ended poorly. What factors of planning and personality might have accounted for the less than desirable outcomes?

- discuss the meaning of information face to face.
- decide on a common course of action.
- establish a plan of action.
- report on the progress of a plan, evaluate its effectiveness, and revise it if needed.

More than just knowing when to call meetings, you need to know how to plan them. The following guidelines should help you plan more effective meetings:

1. *Have a specific purpose for holding a meeting.* Unnecessary meetings waste time. If your goal is simply to increase interaction, plan a social event rather than a meeting.
2. *Prepare an agenda and distribute it to participants before the meeting.* Having an agenda gives members time to prepare and assemble information they might need. Solicit agenda items from participants.
3. *Keep meetings short.* After about an hour, groups grow weary, and the law of diminishing returns sets in. Don’t try to do too much in a single meeting.

4. *Keep groups small.* You get more participation and interaction in small groups. In larger groups, people may be reluctant to ask questions or contribute ideas.
5. *Assemble groups that invite open discussions.* In business settings, the presence of someone's supervisor may inhibit interaction. You will get better participation if group members come from the same or near the same working level in the organization.
6. *Plan the site of the meeting.* Arrange for privacy and freedom from interruptions. A circular arrangement contributes to participation because there is no power position. A rectangular table or a lectern and classroom arrangement may inhibit interaction.
7. *Prepare in advance.* Be certain that you have the necessary supplies, such as chalk, a flip chart, markers, note pads, and pencils. If you will use audio-visual equipment, check to be sure it is in working order.

## ■ Conducting an Effective Meeting

Group leaders have more responsibilities than other members. Leaders must understand the problem-solving process the group will use so that deliberations can proceed in a constructive way. Leaders should be well informed on the issues involved so that they can answer questions and keep the group moving toward its objective. The following checklist should be helpful in guiding your behavior as a group leader:

- Begin and end the meeting on time.
- Present background information concisely and objectively.
- Lead, don't run, the meeting.
- Be enthusiastic.
- Get conflict out in the open so that it can be dealt with directly.
- Urge all members to participate.
- Keep discussion centered on the issue.
- At the close of a meeting, summarize what the group has accomplished.

As a group leader, you may need to present the group's recommendations to others. In this task, you function mainly as an informative speaker. You should present the recommendations offered by the group, along with the major reasons for making these recommendations. You should also mention reservations that may have surfaced during deliberations. Your job in making this report is not to advocate, but to educate. Later, you may join in any following discussion with persuasive remarks that express your personal convictions on the subject.

## ■ Communication Behavior and Group Effectiveness

Research has uncovered certain communication and leadership behaviors that either encourage or thwart group effectiveness.<sup>21</sup> Better group decisions are made when all group members participate fully in the process, members are respectful of each other and leaders are respectful of members, and there are few if any negative socioemotional behaviors in evidence. More specific details of these findings are listed in Figure A.2.

Enhancing Behaviors	Impeding Behaviors
Opinions are sought out.	Members express dislike for others.
Creativity is encouraged.	Members personally attack others.
Participation is encouraged.	Members make sarcastic comments.
Opposing views are encouraged.	Leader sets criteria for solution.
Members provide information.	Leader makes the decision.
Group analyzes suggestions.	Leader intimidates members.
Members listen to one another.	Meeting becomes a gripe session.
Members respect others' ideas.	Disagreements are ignored, not aired.
Members support others' ideas.	Disagreement is discouraged.
Problem is thoroughly researched.	Members pursue personal goals.
Group sets criteria for solution.	
Members are knowledgeable on issue.	
Evidence for suggestions is presented.	
Group focuses on task.	

**FIGURE A.2**  
Behaviors That Enhance  
or Impede Group Decision  
Making

## Guidelines for Formal Meetings

The larger a group is, the more it needs a formal procedure to conduct meetings. Also, if a meeting involves a controversial subject, it is often wise to have a set of rules to follow. Having clear-cut guidelines helps keep meetings from becoming chaotic and helps ensure fair treatment for all participants. In such situations, many groups choose to operate by **parliamentary procedure**.

Parliamentary procedure establishes an order of business for a meeting and lays out the way the group initiates discussions and reaches decisions. Under parliamentary procedure, a formal meeting proceeds as follows:

1. The chair calls the meeting to order.
2. The secretary reads the minutes of the previous meeting, which are corrected, if necessary, and approved.
3. Reports from officers and committees are presented.
4. Unfinished business is considered.
5. New business is introduced.
6. Announcements are made.
7. The meeting is adjourned.

Business in formal meetings goes forward by motions, or proposals set before the group. Consider the following scenario. The chair asks: "Is there any new business?" A member responds: "I move that we allot \$100 to build a Homecoming float." The member has offered a main motion, which proposes an action. Before the group can discuss the motion, it must be seconded. The purpose of a **second** is to ensure that more than one person wants to see the motion considered. If no one volunteers a second, the chair may ask, "Is there a second?" Typically, another member will respond, "I second the motion." Once a motion is made and seconded, it is open for discussion. It must be passed by

Most colleges and universities have a student senate that operates under *Robert's Rules of Order*. Have students attend a senate session and evaluate how the rules were applied during the meeting.



majority vote, defeated, or otherwise resolved before the group can move on to other business. With the exception of a few technical motions (such as “I move we take a fifteen-minute recess” or “Point of personal privilege—can we do anything about the heat in this room?”), the main motion remains at the center of group attention until resolved.

Let us assume that as the group discusses the main motion in our example, some members believe the amount of money proposed is insufficient. At this point, another member may say: “I move to amend the motion to provide \$150 for the float.” The motion to amend gives the group a chance to modify a main motion. It must be seconded and, after discussion, must be resolved by majority vote before discussion goes forward. If the motion to amend passes, then the amended main motion must be considered further.

How does a group make a decision on a motion? There usually is a time when discussion begins to lag. At this point the chair might say, “Do I hear a call for the question?” A motion to “call the question” ends discussion and requires a two-thirds vote for approval. Once the group votes to end discussion, it must then vote to accept or reject the motion. No further discussion can take place until the original or amended original motion is voted on.

Sometimes the discussion of a motion may reveal that the group is confused or sharply divided about an issue. At this point a member may move to “table the motion.” This is a way to dispose of a troublesome motion without further divisive or confused discussion. At other times, the discussion of a motion may reveal that the group lacks information to make an intelligent decision. At that point, we might hear from a member: “In light of the uncertainty of costs, I move we postpone further consideration until next week’s meeting.” The motion to postpone consideration gives the chair a chance to appoint a committee to gather the information needed.

**FIGURE A.3**  
**Guide to**  
**Parliamentary Procedure**

Action	Requires Second	Can Be Debated	Can Be Amended	Vote Required	Function
Main Motion	Yes	Yes	Yes	Majority	Commits group to a specific action or position.
Second	No	No	No	None	Assures that more than one group member wishes to see idea considered.
Move to Amend	Yes	Yes	Yes	Majority	Allows group to modify and improve an existing motion.
Call the Question	Yes	No	No	Two-thirds	Brings discussion to an end and moves to a vote on the motion in question.
Move to Table the Motion	Yes	No	No	Majority	Stops immediate consideration of the motion until a later unspecified time.
Move to Postpone Consideration	Yes	Yes	Yes	Majority	Stops immediate discussion and allows time for the group to obtain more information on the problem.
Move to Adjourn	Yes	No	No	Majority	Formally ends meeting.



## ACKNOWLEDGMENTS

*(Continued from page iv)*

## ILLUSTRATION ACKNOWLEDGMENTS

All Illustrations by Warren Gebert EXCEPT:

Page 49: Photo by Sygma Photos

Page 157: Hogarth print. All rights reserved. The Metropolitan Museum of Art. Gift of Sarah Lazarus, 1891. (91.1.33).

Page 158: The Investigation. © John Jonik. This cartoon first appeared in Psychology Today, February 1984. Reprinted with permission from Psychology Today Magazine, © 1984 Sussex Publishers.

Page 160: Photo by George Mars Cassidy/The Picture Cubet

Page 207: Photo by Patrick Dural/Sygma

Page 228: Photo by Sygma

Page 296: Photo by Jean Pierre Laffont/Sygma

## TEXT ACKNOWLEDGMENTS

Page 18: Reprinted from Computers in Libraries, courtesy of Information Today, Inc., Medford, New Jersey. Reprinted with permission.

Page 46: "Prosecutor to Weigh Possibility of Charging Kevorkian" by Pam Belluck, The New York Times, November 23, Copyright © 1998 by The New York Times. Reprinted by permission.

Page 49: "'60 Minutes,' Kevorkian and a Death for the Cameras" by Caryn James, The New York Times, November 23, 1998. Copyright © 1998 by The New York Times. Reprinted by permission.

Page 52: "In No Hurry for Next Leg of the Journey" by David Gonzalez, The New York Times, December 12, 1998. Copyright © 1998 by The New York Times. Reprinted by permission.

Page 79: From The Autobiography of Malcolm X by Malcolm X, with the assistance of Alex Haley. Copyright © 1964 by Alex Haley and Malcolm X, Copyright © 1965 by Alex Haley and Betty Shabazz. Reprinted by permission of Random House, Inc.

Page 141: "Young Hate" by David Shenk, CV Magazine. Reprinted by permission.

Page 166: "On the assassination of Malcolm X," The New York Times, February 22, 1965. Copyright © 1965 by The New York Times. Reprinted by permission.

Page 166: Excerpt from "Assassination of Malcolm X," 3/5/65. LIFE Magazine. Copyright © 1965 Time Inc. Reprinted with permission.

Page 167: From The New York Post, February 22, 1965. Reprinted by permission.

Page 168: From The Amsterdam News, February 27, 1965. Reprinted with permission of N.Y. Amsterdam News.

Page 169: From "The Invisible Epidemic: Teenagers and AIDS" by Andy Humm and Frances Kunreuther from Social Policy. © 1991 by Social Policy Corporation, New York, N.Y. 10036. Reprinted by permission.

Page 177: From "Migrant Worker" by Roberto Acuna from Working by Studs Terkel. Reprinted by permission of Donadio & Olson, Inc. Copyright © 1980 by Studs Terkel.

Page 197: "Is the Earth Round or Flat?" by Alan Lightman from Time Travel and Papa Joe's Pipe, March 1982 issue of Science 80-86. Copyright 1982 by the AAAS. Reprinted by permission of the American Association for the Advancement of Science, and the author.

Page 205: From "Square Is Cleared" by Nicholas D. Kristof, The New York Times, June 4, 1989. Copyright © 1989 by The New York Times. Reprinted by permission.

Page 207: From "Beijing Death Toll at Least 300; Army Tightens Control of City but Angry Resistance Goes On" by Nicholas D. Kristof, The New York Times, June 5, 1989. Copyright © 1989 by The New York Times. Reprinted by permission.

Page 213: From "Why I Quit the Klan" by C. P. Ellis from American Dreams: Lost and Found by Studs Terkel. Reprinted by permission of Donadio & Olson, Inc. Copyright © 1980 by Studs Terkel.

Page 258: From Blue Highways: A Journey into America by William Least Heat Moon. Copyright © 1982 by William Least Heat Moon. By permission of Little, Brown, and Company (Inc.).

Page 260: "Equal to a Pebble" by Roberto Obregon from Word Up! Hope for Youth Poetry. Reprinted by permission of El Centro de la Raza, Seattle, WA.

Page 269: "An Account of Avianca Flight 52," The New York Times, January 30, 1990. Copyright © 1990 by The New York Times. Reprinted by permission.

Page 281: From "Euphemisms" by Bob Herbert, The New York Times, January 19, 1996. Copyright © 1996 by The New York Times. Reprinted by permission.

Page 290: This material is taken from the author's book You Just Don't Understand.

Page 338: "Original Spin" by Lesley Dornen and Peter Edidin, Psychology Today, July/August 1989. Reprinted with permission from Psychology Today Magazine. Copyright © 1989 (Sussex Publishers, Inc.).



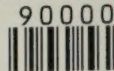




HOUGHTON MIFFLIN

*New Ways to Know*

ISBN 0-618-29659-X



9 780618 296590

90000

N01679